ILLINOIS

December, 1950

Season's Greetings

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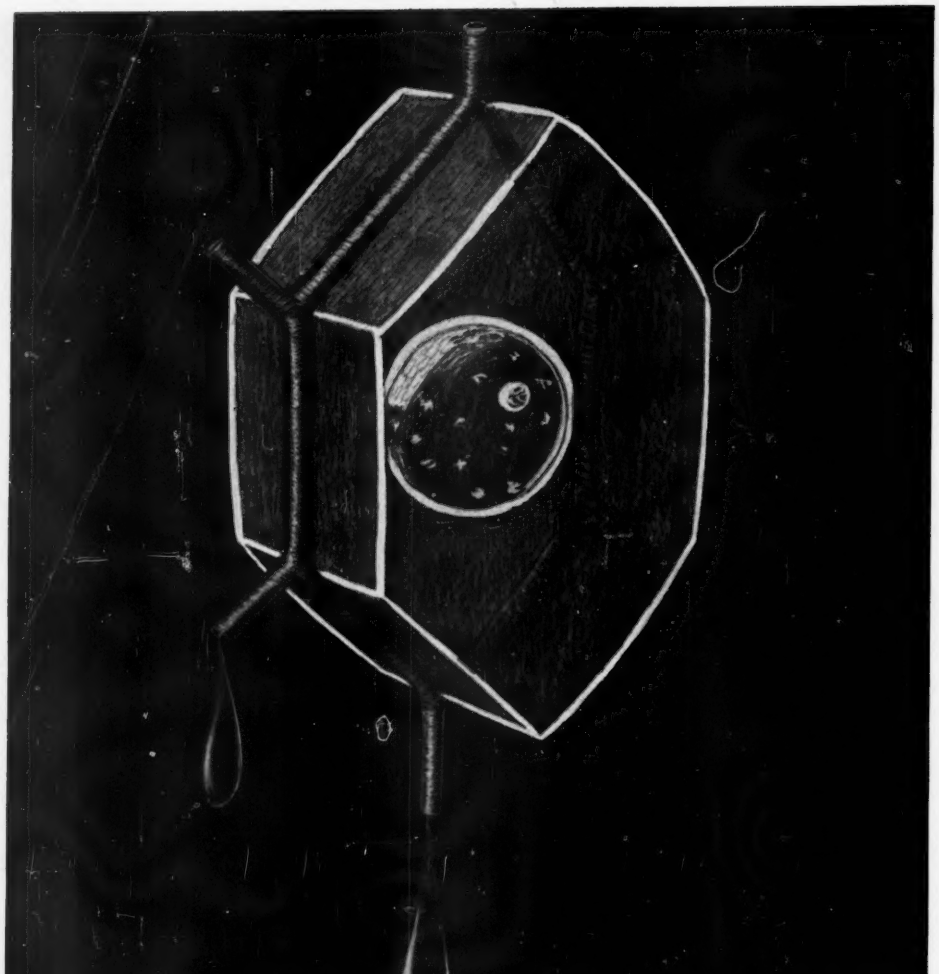

Illustrated by Hans Elias, M. D.

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RESEARCH IN THE SERVICE OF MEDICINE **SEARLE**

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The ILLINOIS Medical Journal

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Vol. 98, No. 6 December, 1950

ERNEST E. DAVIS — OUTSTANDING GENERAL PRACTITIONER

Dr. Ernest E. Davis of Avon, Illinois has been selected as the outstanding general practitioner for 1951. For a number of months all county society secretaries were informed that they were entitled to submit their candidate and necessary data to the state level by October 15. A secret committee was selected to look over the accumulated data and make their selection, which was done on Sunday, October 22.

Doctor Davis was selected as the outstanding general practitioner for Illinois for the year 1951. He will be the candidate from Illinois to be considered by the A. M. A. Board of Trustees and later by the House of Delegates at the Clinical Session in Cleveland, December 5-8. Doctor Davis is the third to be selected in Illinois as the outstanding general practitioner of the year.

Doctor Davis is a good example of the general practitioner at his best, well rooted in his community, serving it unpretentiously, but with great effectiveness for a full half century. At the same time he keeps himself alert to all that is good of what is new in medicine.

Doctor Davis was born October 29, 1875, in Littleton, Schuyler County, Illinois, 40 miles from Avon, Fulton County, where he has spent the fifty years of his professional career. His father, also a physician, was graduated from Rush Medical School, Chicago, in 1853, and practiced at Littleton until his death in 1888. The son, Ernest, was then 13 years of age, and was determined to follow his father's footsteps in a medical career. His high school education was received in Rushville, after which he attended Northern Indiana Normal School, Valparaiso, Indiana, where he won his B. S. degree.

He then entered Northwestern University Medical School, Chicago, where he was graduated in 1900. He took a competitive examination, and won an internship under Joseph B. De Lee at Lying-In Hospital in Chicago. He located in Avon, then a town of 600, and built up a substantial practice. In his long period of practice in Avon, he has seen it grow to a town of 800, and gradually the development of hard roads, water supply, sewage disposal, and many other things now enjoyed in the smaller towns of Illinois. He contributed much to the growth and development of him home town.

For more than 20 years Doctor Davis served as a member of the school board, and for two terms was president of the village board. He has been a director of their unusually strong State Bank for more than 20 years, and serves as its chairman. He was largely responsible for the development of the Saunders Hospital in Avon some 15 years ago. Although it is operated under his supervision, any ethical physician is permitted to care for his own cases in the

modern, well equipped institution. Approximately 1100 acres of fine land was left as an endowment for the hospital, the income from which pays any deficits in the operation of the hospital. More than 5000 patients have received care in this small hospital, and there have been 1266 deliveries, with only one maternal death, due to a kidney abscess. There have been but six caesarian sections in this series of cases.

Doctor Davis has been especially interested in obstetrics, and his records will compare favorably with the statistics of much larger hospitals anywhere. When he first located in Avon, on account of distance and road conditions, Doctor Davis received permission from the Fulton County Medical Society to become a member of the nearby Knox County Medical Society. He transferred to the Fulton County Medical Society when hard roads made it easier for him to go to Canton, the county seat. For 15 or more years, he has been the delegate from the Fulton County Medical Society to the House of Delegates of the Illinois State Medical Society, and he has functioned well in the many assignments which have been given to him by that Body.

Although his professional work and the Saunders Hospital have been his main interests, Doctor Davis has likewise been interested in farming, and operates a farm of some 600 acres. He has long been known as an outstanding raiser of fine stock, and he spends much of his recreation time on the farms. Doctor Davis has written many scientific papers, which have been presented before state and county medical societies over some period of time. Many of these have been published in medical journals.

In 1906, Doctor Davis married Miss Frances Ross of Avon, and they have four children, Mrs. Lucy A. Larson of Galesburg; Howard Davis of Avon; Mrs. Barbara Janes of Avon, and Giles D. Davis of Milwaukee, Wisconsin. There are five grandchildren, including six year old twins. He has always taken a great interest in his own family, and says it is wonderful to be grandfather to twins.

The loyalty of the entire community to Doctor Davis is and has always been tops, he has been a leader in community endeavors, church work and has really been an important factor in community life. He has long been a member of the staff of the two fine hospitals in Galesburg,

Ernest E. Davis, M.D.

and has participated in their respective staff conferences. On several occasions, Doctor Davis has taken post graduate work at Johns Hopkins in Baltimore, the Childrens Memorial Hospital in Chicago, and at several other places. He spends regularly from one to three weeks each year at some clinical conference or graduate work at one of the Chicago medical schools.

Doctor Davis has been a general practitioner, although he has been especially interested in obstetrics. In addition to his numerous papers on obstetrical subjects, he has likewise presented others on such general subjects, as Scarlet Fever, with a report of 156 cases in 14 months; The Treatment of Burns, Barbital Poisoning, with report of a case; The Therapeutic Control of Peptic Ulcer, and some other subjects.

Doctor Davis, although a practitioner of fifty years, keeps up to date with modern medical achievements, and he does not lessen his activities, and does not look nearly his attained age. He bought his first car in 1914, and has worn out many others since that time. He knew the

rigors of the horse and buggy doctor, and spent many days seeing patients and making the trips on horse back, in a buggy, cart, or a wagon.

The committee which selected Doctor Davis as the outstanding general practitioner of Illinois, with some 15 candidates for the honor, had some difficulty in making their selection, but they were all of the opinion that the first choice was selected wisely and well. They desired, however, to pay their respects to the other fine men whose records were submitted for their consideration, and it was brought closely to their attention that Illinois has many physicians in general practice who will compare favorably in their work and achievements with any in the nation.

Doctor Davis is the candidate from Illinois whose name and records have been submitted to the A.M.A. for serious consideration at the Cleveland Clinical Session.

WORRIED ABOUT YOUR BLOOD PRESSURE?

"Knowing that I have high blood pressure has poisoned my life." This remark came from a patient of Dr. Robert S. Palmer[1] of Boston who cited it as an example of how some patients feel after they know that they have hypertension. It is an unfortunate attitude but reasonable, considering the stigma attached to the condition. Even physicians who develop the disturbance often find it hard to take.

This is a common occurrence. There are many mysteries associated with hypertension but it is well known that a relationship exists between the emotions and blood pressure. This is taken into consideration when outlining a plan of treatment. To accomplish this aim, the physician often assumes the role of psychiatrist and delves into the personal history and intimate details of the living conditions and habits of the patient. For best results, it often is necessary to uncover and eliminate anxiety, fear, resentment and other disturbing features that might aggravate the pressure.

But there is one cause for anxiety that often is overlooked. This cause frequently stems from the physician himself. It is known as blood pressure anxiety and, in the more suggestive individual, may change a relatively benign hypertension into one that is malignant. It comes from talking too much. During the initial examination of any patient the reading is likely to be elevated due to excitement and apprehension. All too often it is normal by the next visit provided the reading was not excessive originally. Many feel that it is unfair to bring the height of the blood pressure to the attention of the patient during the initial consultation. Furthermore, this is no time to order extensive laboratory procedures; it is better to wait until a definite diagnosis of hypertension has been made. This is avoided by not mentioning the blood pressure until the second or third visit. In this way, blood pressure anxiety does not complicate the picture.

If the new research on blood pressure by Master, Dublin, and Marks[2] is accepted, it will help to avoid trouble along this line. These men believe that our present standards are too low and in this respect share the opinion of many physicians. All of us have seen many men and women with hypertension live far beyond normal life expectancy. In addition, the authors noted that: "Blood pressures of 140 mm. (of mercury) systolic and 90 mm. diastolic or over are present in about 40 per cent of both men and women at ages 45 to 49 and in 60 per cent at ages 60 to 64." . . . . "Even on the basis of a dividing line of 150 mm. systolic and 100 mm. diastolic, the prevalence of hypertension was high. It was estimated that 32 per cent of the men aged 40 and over had this degree of hypertension; at 50 and over, 43 per cent; at 60 and over, 55 per cent, and at 70 and over, 62 per cent. The percentages for women in these age groups were substantially higher than those for men."

They reevaluated the data by means of a more logical statistical analysis. The results showed that higher readings were within normal limits. The normal range, for example, of systolic blood pressure in males starts at age 16 with 105 to 135 mm. and progresses so that at ages 60 to 64, it is between 115 and 170 mm. An excerpt from their comment near the end of the article is worth repeating: "Since systolic pressures of 160 to 190 mm. of mercury and diastolic pressures of 100 to 110 mm. of mercury are not

1. Palmer, Robert Sterling: Psyche and Blood Pressure, J.A.M.A., Vol. 144, p. 295, Sept. 23, 1950.

2. Master, Arthur M., Dublin, Louis I., and Marks, Herbert H., The Normal Blood Pressure Range and Its Clinical Implications, J.A.M.A., Vol. 143, p. 1464, Aug. 26, 1950.

uncommonly observed after the age of 50, patients with such readings may be in good health, and efforts to lower the blood pressure by means of drugs or strict low sodium or rice diets may be unnecessary. In evaluating the status of these patients, one should first determine cardiac function. If coronary disease, cardiac enlargement or heart failure are present, therapy should be directed toward these conditions rather than toward hypertension." These findings should be reviewed by all physicians who wish to change their concepts of hypo and hypertension.

"TAKE AS DIRECTED"

Noble J. Puffer,
Director, Department of Registration and Education

I have been officially informed that a large number of doctors are submitting prescriptions which are to be filled by pharmacists with only the instructions, "Take as directed."

The instructions, "Take as directed" should be avoided. An ill patient or a distracted and worried parent or relative cannot always be relied upon to remember clearly the verbal directions given by the physician, or he may remember them incorrectly. If the directions are too lengthy or complicated to be placed on the prescription, they may be written on a separate instruction sheet and left with the patient. Directions which would be embarrassing to the patient if placed on the prescription should be given in private.

Detailed directions to the patient may be omitted from the signature in the case of prescription for vaginal or urethral application, etc., that is, when the directions would be of such a nature that their presence on the label would unnecessarily offend the modesty of the patient.

Under these conditions it is customary to order the prescription to be used, "As directed." When such is done, the physician should give the detailed directions for the use of the prescription to the patient in writing, and if the prescription is one that would be poisonous or otherwise dangerous if taken internally, he should direct it to be labeled, "For external use only" or should order a poison label to be placed upon the container. In this class of prescriptions, it is often advisable to omit the patient's name from the prescription for the same reason that calls for the ommission of the detailed directions for use.

The signature comprises the necessary directions to the patient for his use of the preparation. These directions should include the size of the dose, the frequency of its repetition, the necessity for its dilution or other modifications, and such other information as may be needed to guide the patient in its safe and proper use.

Since we are all concerned about the health of the patients, I would urge every physician to read this article carefully and even if it takes a few seconds more to prepare the instructions on the prescription, it is, I believe, a necessary step. I have taken this means of calling the problem to your attention since I have no direct method of communication with the medical profession except through their own periodicals.

VULVAR SORES

It is felt that granuloma inguinale offers a very hopeful prognosis if diagnosis is made early and modern antibiotic therapy is employed. In the recurrent or neglected case, where distortion of the external genitalia has become a serious problem to the patient, surgery (vulvectomy) in addition to antibiotic therapy (streptomycin) will give successful results. Other venereal diseases should be excluded by appropriate tests and treated if present. Biopsy will eliminate possibility of carcinoma which should always be considered in the differential diagnosis. *Excerpt: Granuloma Inguinale Treated by Vulvectomy and Streptomycin, Mary DeWitt Petitt, M.D., F.A.C.S., professor of gynecology, and Carmen C. Thomas, M.D., Sc.D., professor of dermatology, Woman's Medical College of Pennsylvania, J.A.M.W.A., Sept.,* 1950.

MEDICAL ECONOMICS

The Medical Economics Committee. Chauncey C. Maher, Chairman, John R. Wolff, Co-Chairman, Edwin F. Hirsch, Carroll Birch, Hubert L. Allen, Frederick W. Slobe, Edward W. Cannady, Ford K. Hick, W. Robert Maloney, Roland R. Cross, Alfred P. Bay, Frederick T. Jung.

Why We Study Medicine

A large number of students applied for admission to the 1950-1951 freshman class of the University of Illinois College of Medicine. Of these, 544 fulfill the scholastic requirements for entrance. In this group are 248 veterans. From these 544 candidates only 166 can be selected, for that is the capacity of the incoming freshman class. Included in the accepted number are 67 veterans. In choosing the successful one-third of the applicants, four main factors are considered:

1. The grade point average for the three or more pre-medical college years.
2. Written recommendations from four college teachers.
3. Interviews by two or more members of the Interviewing Committee for Admissions of the College of Medicine.
4. Results of the "Medical College Admissions Test" commonly called the "Aptitude Test."

Selection often is difficult because there are many extenuating circumstances. Every effort is made to be entirely impersonal and impartial and to judge each applicant on his or her own merits under the four categories listed.

The following analysis included 509 (27 women) applicants, all of the records that were in the files when the study was made. 166 were admitted and 343 deferred. Of 482 men, 160 were accepted—33%; of 27 women, 6 were accepted—22%. The fathers of 40 of the applicants are physicians. Of these, 14 are accepted and 26 deferred. This is almost exactly the same ratio that the total number of accepted bears to the total number of applications analyzed. In other words, 32.6% of the total applicants are accepted and 35% of the physicians' sons are accepted.

ANALYSIS OF 166 ACCEPTED APPLICANTS

Eighty-three (79 men, 4 women) are from Cook County, eighty-three (81 men, 2 women) are from counties other than Cook in Illinois. Sixty-seven are veterans of World War II. Ages vary from 19 years to 34 years; the greatest number are in the 20 year group. The distribution is: 19 years—11, 20 years—55, 21 years—28, 22 years—18, 23 years—16, 24 years—13, 25 years—11, 26 years—1, 27 years—3, 28 years—3, 29 years—4, while one was 30, one 32 and one 34 years.

One applicant was born in Germany, another in Austria. One was born in the Belgin Congo of American missionary parents. There are two Negroes in the class. One applicant is a rabbi,

two are graduate of the Naval Academy, one is a descendant of William and John Hunter, one received the Bausch and Lomb award for scientific work.

Naming the birth places of the parents is not required on the applications but often they are noted. The following were found in the records: six fathers born in Russia, two in Germany, three in Poland, one in Lithuania. Of the mothers, one was born in Russia, one in Czechoslovakia, and one in Lithuania. This is a very incomplete record. Interviewing applicants for many years, the writer has been impressed by the high percentage of first generation Americans who desire to study medicine. This fact should be emphasized, not hidden, since it is a tribute to our new citizens and to our country, the speed with which they take advantage of our free educational system.

It is not required to state the occupations of the parents but often they are noted on the application blanks. Many applicants seem proud of the accomplishments of their parents. As stated before fourteen applicants are sons of medical men, while the mother of one is a physician. Sixteen others have brothers, uncles, aunts, grandfathers or cousins who are physicians. Three fathers are dentists, six are ministers, one is a druggist, on a veterinarian, one father is an Annapolis graduate, one brother is a minister. Mention is made of two mothers who are nurses and one a social worker. Fathers of 12 applicants are dead and they have been supported entirely or in part by their mothers. Several said: "My mother thinks so much of her doctor that I want to become a physician."

Plans For the Future.—Of the 166 applicants who will enter medical college, 26 have no plans beyond the acquisition of an M.D. They feel there is ample time during the medical course to decide whether or not to specialize, the type of specialty, the most advantageous location and other questions pertaining to the future. Many others are quite undecided, perhaps it will be "surgery" or maybe "obstetrics" or even "general practice." It seems evident that "general practice" and "internal medicine" are used synonymously on a number of applications.

By contrast, others have definite plans. One will suffer thru medical college to become a brain surgeon, another desires to do nothing but surgery of the hand. Eighty-three (27 from Cook County) desire general practice at least for the first five years. Forty-eight (12 from Cook County) wish to practice in small towns or rural areas. Only two mention Chicago especially as the site of their choice for practice. Several say they want to be near a large hospital, a medical college, dependable laboratories and reliable consultants without giving specific locations.

The following specialties are mentioned: surgery, 17 times; psychiatry, 16; research, 14; mission field, 9; pediatrics, 9; neurology, 5; while cardiology, obstetrics, gynecology, roentgenology and teaching each are listed four times. Orthopedics receives three votes while ophthalmology, anesthesiology, and tropical medicine obtain two each. The following specialties are noted once: otolaryngology, electronics, pathology, proctology, brain surgery, public health and endocrinology. A few applicants list a number of possible specialties, only the first three choices are considered in this analysis. Several mention research as a last resort or as something to return to after years of successful practice. A number of applicants state "any plans I have now are subject to change while I am in medical college."

Here are a few quotations concerning specialties: "I have ideas and plans which I believe will be of great benefit to those who are in need of accurate diagnosis and treatment. My particular interest lies in x-ray. I contemplate to treat people of low and middle brackets so that they might be able to receive excellent work at a cost within their budget. Also a laboratory, open 24 hours, and to do research." "I want to specialize in surgery. I have carved figures out of wood and built model airplanes." "I am ready to devote myself to my work. If I could donate my right arm and still become a surgeon I would do so."

Reasons For Studying Medicine.—About 70 applicants list more than one reason: Desire to help his less fortunate brothers, to better the world, to conquer disease, and to decrease suffering are listed more often than other reasons. These altruistic, humanitarian desires are noted 53 times. Here are some exact quotations on the subject: "Medicine to me is far more than a mere occupation. It is a life devoted to the service of mankind." "My foremost efforts will be put forth to free humanity from the discomforts and pains that now plague it." "I use the analogy

of the truck with the human body. If I could get broken down trucks to run again, how much more wonderful it will be to repair and make healthy the broken down human body." "Medicine is the most interesting, dynamic and purposeful of occupations devoted to alleviation of suffering or perpetuation of the life of a fellow human. I have always revelled in matters of complexity and magnitude."

Interest in science, chiefly biology, in high school and college served as an inspiration 42 times. Twenty-seven could list no specific reason. They simply knew they have wanted to be doctors and have had that desire since early childhood. Here are some general quotations: "The greater the problem the greater the feeling of victory." "The medical field with its unlimited horizon of science and its wealth of personal contacts will afford the most fertile field for developing my potentialities and interests." "The medical profession to me is the culmination of everything one has learned or been taught." "A doctor seems to have most contacts with people. He is first to greet an infant and in a short time is accepted and admired by the youngsters whose admiration grows as he grows and is passed on to his children. A doctor knows no age group."

Twenty-eight were inspired by specific contacts with people such as the family doctor, father or near relative who is a physician, mother a nurse or social service worker. One "dated a medical technician" and was stimulated by her hospital stories, another was inspired by reading books by Paul De Kruiff, while another desires to follow Albert Schweitzer. One wishes to emulate his father-in-law who is a physician. Fourteen began thinking of medicine as careers while serving in the army and five while in the navy. Thirteen conceived the idea because of personal illness or the suffering of mother, father or chum. Several expressed it this way: "I feel an overpowering desire to enter the profession and I was highly motivated by some surgical and hospital contacts when I had a pilonidal cyst removed." "I first became interested in the medical profession approximately six years ago when I successfully cured a rash on a horse's head."

Twelve applicants wish to practice medicine to make money and to enjoy the security the profession affords and eight covet the prestige which physicians enjoy. Some say it in this fashion: "It is my desire to be in a profession, highly valued, respected and honored by the multitude." "The very title 'Doctor' has an appeal because it is a position of respect and a challenge to obtain." "The doctor is a respected man with an infallible character, scrupulous morals, and high ideals." "An M.D. has security, happiness and contributes to society." "I don't pretend to disdain the good income which most physicians earn." "I shall be proud, respected and financially secure and no one will be giving me orders."

Ten plan medicine as a career for religious reasons. Written in these words: "God has called me to study medicine." "God told me to go to India as a medical missionary." "Life to me is a fascinating challenge, ultimately understood only by God." "To restore health and happiness." "The ultimate end of all learning should be the good it can do for mankind."

Six are curious to know how the human body ticks. Stated in this manner: "What strange and wonderful secrets the human body conceals." "The essential nature of medicine provides the keystone for such a global orientation to the organism and I feel mature enough to concentrate my efforts in this direction." "Health, disease and death have always been problems to me." "Medicine integrates in its extention the fields of biology, chemistry and psychiatry. It is this apex of integration in medicine at which my drive 'to know' is found." Three believe they would derive personal satisfaction from the practice of medicine.

Three developed the urge for medicine because they were boy scouts and three others while taking courses in first aid and another during his counselorship at a boys' camp. The interest of two were aroused by the gifts of chemical sets when they were little boys. Two entered medicine through physical education. One was inspired by a tour through a medical school.

One applicant seeks intellectual stimulation. Another is dissatisfied with theology and hopes to find gratification in medicine. One wishes to be his own boss. Another was stimulated while working in a funeral home. Employment in a drug store was inspiration to another. One boy read a "history of medicine" at the age of nine years and decided to become a doctor. Another

wishes to study medicine because his town deserves a good doctor—two physicians live in his town; one is a morphine addict, the other partakes too freely of alcohol.

The reasons for studying medicine sometimes are listed in a few short sentences, sometimes in several pages of flowery language. These applicants know it is difficult to enter medical college. This fact undoubtedly influences the reasons listed. It would not be human to ignore the imagined ideas and ideals of the admissions' committee. Some list several personal reasons and end with the after thought of "aiding mankind." On the whole, the motives have a definite ring of sincerity.

ANALYSIS OF 343 DEFERRED APPLICANTS

Three hundred forty-three applicants, 322 men, 21 women, fulfill the requirements for admission but could not be accepted for lack of facilities. Two hundred twenty of these are from Cook County, one hundred six are from Illinois outside Cook County, seventeen are not residents of the State. Four non-residents are from California, three from New York, two from Pennsylvania, and one each from Kentucky, Ohio, Connecticut, Colorado and Arizona. Three are from foreign countries: Borneo, British Honduras and Nigeria.

Ages vary from 18 to 43 years. The largest numbers fall into the 21 to 22 year brackets. One hundred twenty-five desire to enter general practice, seventy-two have no definite plans, eighty hope to practice in towns or in rural Illinois, seven wish to practice in Chicago. One plans to go to each of the following countries as missionaries: French Equatorial Africa, Alaska, China and the Sudan.

Plans for Specialties.—Surgery heads the list with 38, psychiatry is next with 34 and research 31. All of the specialties listed under the "accepted group" are represented plus parasitology, industrial surgery, dermatology, cancer research of the skin, allergy, preventive medicine, urology, hematology, gastroenterology, research on poliomyelitis, oral surgery and research in bacteriology.

Eight applicants were born in other countries: Germany 2, one each from Borneo, Philippines, Nigeria, Poland, Mexico and Italy. Foreign born parents were mentioned 104 times (73 fathers, 51 mothers). This is a very incomplete statement for many of the applications did not contain this information. Four are Negroes, sixteen are married. Fathers of 27 applicants are deceased.

Reasons for studying medicine fall into the same general groups as those of the accepted students with the following additions: "To benefit my race." "Death of parents." One stated the first composition written in primary school was entitled "I Want to be a Doctor." One operated on snakes and mice. A broken leg served as an introduction to another. Seeing an epileptic convulsion aroused another. Dissatisfaction with Chiropody stimulated desire for greater knowledge. Reading "Layman's Handbook of Medicine." "My father is a Chaplain at a hospital. Visits with him stimulated by interest in medicine." Two have wives who are studying medicine. One was inspired by reading the "Life of Harvey Cushing." Employment as a social worker decided one applicant. Psychoanalysis for mental illness aroused the desire of one to become a psychiatrist. When one applicant was 9 years old, his father gave him five volumes on physiology and anatomy. He read them avidly and decided to study medicine. Work in "Poisonous Animal Research" served as an inspiration. An embalmer became interested in anatomy and pathology. Cholera epidemic in China, 1935, initiated interest of another in medicine.

Here are some quotations from applications. This statement must have come from a rather frank fellow: "I won't waste paper by enumerating the usual supercilious reasons put forth. I have no altruistic designs but desire to become a physician because it is the best means of livelihood I know." Personal aims are listed only a few times but here are some: "Personal growth, self-respect and self-esteem—as an authority on the human race—life and health." "The doctor's merit alone can earn for him an admirable reputation and the respect of his community." "Professional associations of highest quality and character in clean, pleasant surroundings." "Because I feel I have a way with people and am a person in whom people would want to place confidence."

Here are some quotations which differ from the general group: "Interest seemed to arise spontaneously within me." "Desire to raise myself to a professional, social level." "It is a profession of sacrifice but of rewards." "Medicine offers a scope and knowledge that is not only

informative but also conducive to thought, meditation and further research." "My plan to study medicine is for the purpose of becoming a psychoanalyst. I hope to go to medical school in Chicago to be near the Institute for Psychoanalysis." "Medical profession is among the most honorable and it stands out above the others because it has to do with the most wonderful of mysteries—human life." "Dr. ———, my inspiration and ideal, is dead but my only hope and prayer is that some day I will be as wonderful a doctor as he was." "At the age of 15, I witnessed the birth of a child upon the steps of Mother Cabrini Hospital. That sight so impressed me that since I have had no other ambition than to become an obstetrician."

To quote further: "The qualification for Life's occupation is constant acquisition of knowledge, consequently wisdom, helping the community by relieving individual worries and sickness and social contacts through patients, prestige, and economic security." "Motivated by keen desire to make a contribution to the welfare of mankind and fortified with the knowledge and belief that I possess the personal equipment to fulfill that desire has brought me to the conclusion that I am adapted and suited to practice medicine." "Interest in medicine began when I carried out my task of fish cleaning, rabbit and pheasant dressing and drawing of domestic fowl." "When cholera swept South China in 1935, thousands of people died from ignorance and inadequate medical care." "Medicine to me is more than a profession, it is a way of life. Medicine is the most fascinating field of endeavor pursued by man." "I realize my choice involves some hardships but the personal satisfaction more than compensates for any sacrifice I may have to make."

Many expressed their choice of medicine as a career on a high humanitarian note: "To live in this world and be happy one must serve mankind, in some way. It is through this cultured medium, the medical profession, that I wish to offer my contribution to mankind." "During my childhood the family doctor created in me an impression of awe inspiring respect. He was the witch doctor who could perform miracles in returning one from sickness to health."

Some are very personal: "My gluteus maximus still smarts when I think of the time my mother found me dissecting a snake on her breadboard, trying to find out how it could crawl so fast without any legs to do it with." "My mother and several of her sisters are nurses. As I listened to them talk about doctors and hospital life, I acquired a keen interest in the medical profession." "The medical and spiritual penury of the women of India was presented to me. The Lord led me shortly after this to study to be a missionary doctor to the women of India." "I feel a debt to myself and to my father's patients and to my father whose death at the age of 46 may be directly attributed to overwork in the practice of the profession which he believed and I believe to be the only means of profitably spending one's life."

Comparison of the accepted group with the deferred group reveals few differences so far as their inspirations and aspirations for the medical profession are concerned. The vast majority state a preference for small town or rural practice. This decision may be colored by the fact, so often emphasized, the need for doctors outside the large cities.

Under "Reasons for Studying Medicine" each statement is interesting but only a few are quoted. One is impressed by the small instances which change the life plans of people, the receiving of a chemistry set when a child, the casual reading of a book, conversation with one person on a single occasion, personal illness or contact with the illness of others. Teachers of biology in high school must present their subjects well, for many applicants mention this first contact with science as their earliest stimulae for the choice of medicine as a career.

The big question is "What will become of all these qualified but deferred applicants who have spent several years in preparation and more years in planning and dreaming?" The disappointment to them and to their families is great. Some will reapply next year. Even now some applications have been renewed annually for 3 or 4 times. Of course, preparation for medical college will serve also for other careers. Some may become dentists or teachers. Others will enter research. Chemistry, especially industrial chemistry, is an expanding field. Commercial work in the pharmaceutical houses, and laboratories are profitable outlets. Although these young people may make satisfactory adjustments to life, they will always remember, and on many occasions will say—"I planned to study medicine, but— !"

CORRESPONDENCE

"YOUR MENTAL HOSPITALS" — RESEARCH GRANTS

The Illinois Department of Public Welfare, through its various state hospitals, has been able to foster research in various aspects of mental illness in order to improve the care of the mentally ill. At the present time research grants have been made available to several of the institutions.

At the Elgin State Hospital, Elgin, Illinois, a $10,000.00 grant has been made available by the Vitamin Foundation to assist in the work being conducted on studies of niacin and tryptophane requirements and interrelationships in human nutrition. Investigations at the Elgin State Hospital have uncovered evidence that the psychiatric behavior of the mentally infirm is aggravated if inadequate amounts of vitamin B are present in the diet. Previous investigations showed conclusively that ill effects on mental health could result from inadequate allowances of B complex vitamins. In the early studies, a biochemical procedure was devised to recognize the earliest stages of vitamin B deficiency. Results of this research suggests that the aged are less resistant than the young to the ill effects of low vitamin B diet. The success of this project has led to the furthering of research on similar projects on the human requirements of other aspects of the vitamin B complexes.

At the Lincoln State School and Colony, Lincoln, Illinois, a federal grant of $2500.00 was allocated for the purpose of research to help in devising psychological tests for testing and diagnosing physically handicapped children. The grant is to be used for the standardization of the Oseretsky Tests of motor proficiency. When these tests are standardized, they are expected to provide a scale for measuring an individual's motor proficiency at different levels of development, and these tests should also aid in the more complete diagnosis of a person's total capacities. It is hoped that valuable information in physically handicapped, as well as normal children, can be otbained. The tests might provide a method for estimating the degree of motor defects in various types of cerebral palsy.

At the Elgin State Hospital, a grant of $4,800.00 was recently received from the United States Public Health Service to carry out certain research projects in the field of psychology. The two projects are:

(1) The development and standardization of projective techniques for psychiatric aides.

(2) The study of prodromal factors in mental illness.

In the first study, various psychological tests are to be used in an attempt to set up scales for the selection and evaluation of psychiatric aides. At the present time, these tests are simply used

as research tools. If it is found that some of these techniques give significant results in differentiating individuals who prove to be highly efficient psychiatric aides from those who are not satisfactory, then a significant advance will be made.

In the second study, attempts will be made to get objective evaluation and diagnostic and prognostic significance in prodromal factors in mental illness, including such important factors as pre-psychotic personality, early home and school adjustments, onset and duration of psychotic symptomatology, etc.

Thus the Illinois Department of Public Welfare is constantly striving, through various methods, to improve the care of the mentally ill in the mental hospitals of the State of Illinois.

George A. Wiltrakis, M.D.
Deputy Director

FIFTH CONGRESS OF PAN-PACIFIC SURGICAL ASS'N.

The Fifth Congress of the Pan-Pacific Surgical Association will be held in Honolulu November 10-21, 1951.

The object of the Pan-Pacific Surgical Association is to bring together surgeons from countries bordering on the Pacific Ocean so as to permit the exchange of surgical ideas and methods and to develop a spirit of good fellowship among the various races represented. Although it was planned that meetings would be held every three years, world events have permitted but four conferences since the organization was conceived—the first in 1929 and the last in 1948.

The Fifth Congress provides an opportunity for doctors to combine a delightful vacation in Hawaii with attendance at a scientific meeting, the program of which will be presented by top-flight surgeons from the Pacific area countries, as planned by the program committee. Doctors are urged to bring their families with them and are promised luxurious accommodations.

Dr. F. J. Pinkerton, President of the association, has been officially appointed as travel agent for those coming to the meeting. To be assured of preferred accommodations, travel and hotel reservations should be made through Dr. Pinkerton.

Further information may be obtained by writing the Pan-Pacific Surgical Association office, Suite 7, Young Building, Honolulu, T. H.

REGULAR CORPS EXAMINATION FOR MEDICAL OFFICERS

A competitive examination for appointment of Medical Officers in the Regular Corps of the United States Public Health Service will be held on February 12, 13, and 14, 1951. Examinations will be held at a number of points throughout the United States, located as centrally as possible in relation to the homes of candidates. Applications must be received no later than January 15, 1950.

The Regular Corps is a commissioned officer corps composed of members of various medical and scientific professions, appointed in appropriate categories such as medicine, dentistry, nursing, engineering, pharmacy, etc.

Appointments will be made in the grades of Assistant Surgeon (equivalent to Navy rank of Lieutenant (j.g.) and Senior Assistant Surgeon (equivalent to Lieutenant). In making assignments, consideration is given to the officer's preference, ability, and experience; however, all commissioned officers are subject to change of station and assignment as necessitated by the needs of the Service. Appointments are permanent in nature and provide opportunities to qualified physicians for a life career in clinical medicine, research, and public health. Applicant who successfully complete this examination may ordinarily expect appointment as soon as they become eligible.

Requirements; Both grades: United States citizenship. At least 21 years of age. Graduation from a recognized school of medicine.

Assistant Surgeon: At least seven years of educational training and professional experience subsequent to high school.

Senior Assistant Surgeon: At least ten years of educational training and professional experience subsequent to high school.

Applicants who will complete these requirements within nine months of the date of the written examination will be admitted, but may not be appointed until they meet the above requirements. Physicians who are successful in the examination and are now serving internships will not be placed on active duty in the Regular Corps until completion of internship. The examination will include an oral interview, physi-

cal examination, and written objective tests covering the professional field.

The written professional examination for the grade of Assistant Surgeon will cover the following material: basic medical sciences, including anatomy, physiology, biochemistry, microbiology, and pathology; practice of medicine, including internal medicine (including neurology and psychiatry), therapeutics and toxicology, pediatrics, and medical problems of obstetrics and gynecology; practice of surgery, including surgery, orthopedics, gynecology, obstetrical procedures; and preventive medicine and public health. The examination for Senior Assistant Surgeon will include the above subjects with the exception of anatomy.

Physical Requirements: Candidates must be found physically qualified as a result of an examination performed at a Public Health Service facility. Since the physical standards for appointment to the Commissioned Corps are relatively high, it is recommeneded that applicants complete this examination as soon as possible to obviate the necessity of taking the written examination if found not physically qualified. Candidates who are examined before January 2, 1951, can probably be informed of their eligibility or failure to qualify before the written test. Candidates who have a physical defect, or who have had serious illness or injury, should attach a statement to their applications outlining in detail the nature of such illnesses or injuries, treatment received, periods of hospitalization, length of absence from work, and present status.

Gross pay is identical to that of officers of equivalent rank in the Army and Navy. Entrance pay for an Assistant Surgeon with dependents is $5,686.56 per annum; for Senior Assistant Surgeon with dependents, $6,546. These figures include the $1,200 annual additional pay received by Medical Officers as well as subsistence and rental allowance. Officers on active duty are not eligible to receive disability compensation from the Veterans Administration.

Promotions: Provisions are made for promotion at regular intervals up to and including the grade of Senior Surgeon (Commander) and for promotion by selection to the grade of Medical Director (Captain).

Retirement pay after 30 years of service or at the age of 64 is three-fourths of annual basic pay at the time of retirement. Retirement for disability is authorized under the Career Compensation Act, and minimum disability retirement pay is ordinarily one-half of annual basic pay at the time of retirement.

Additional benefits include periodic pay increases (time served as a member of the armed forces is credited), 30 days annual leave, sick leave, full medical care, and the usual privileges extended to officers of the military forces.

Application forms and additional information may be obtained by writing to the Surgeon General, United States Public Health Service, Federal Security Agency, Washington 25, D. C. Attention: Division of Commissioned Officers.

Applications received after January 15, 1951, can not be accepted.

ANNUAL PRIZE

The Chicago Society of Industrial Medicine and Surgery awards an annual prize of $150.00 for a meritorius scientific paper in the field of Industrial Medicine and Surgery.

The purposes of this contest are: 1. To stimulate original thinking among the younger group who are to be eligible. 2. To encourage publication of worthwhile studies and procedures. 3. By direction of thinking toward industrial health problems, to attract desirable graduates into the field of Industrial Medicine and Surgery.

Eligibility and Judging: Any physician in the Chicago area who has received his M.D. degree within the six years immediately prior to the date closing the contest (March 1st) for the current year shall be eligible. Three judges will be selected, one from each of two medical school faculties, and one from the membership of our Society. The judges shall have the authority to withold the award if a paper of sufficient merit has not been submitted.

Subject matter: The paper must present original laboratory or clinical ideas or research data pertaining to industrial medical or surgical subjects. Papers will be judged on originality, prospective or proven value of application in practice, and clarity of presentation. It shall not have been previously published or presented at a meeting. Subsequent to the award, the author will publish the paper in a suitable scientific journal with an attached notation of the award. The manuscript with two carbon

copies submitted for the contest should not be signed by the author, but should be identified by detached letter and mailed to the secretary of the Society, who will then identify each by number and forward to the judges. The manuscript shall be submitted not later than March 1st each year. The paper and award will be presented at the annual meeting of the Society.

BURTON C. KILBOURNE, M.D.
Chairman-Committee on Awards
CARLO SCUDERI, M.D.
President

WOMEN'S AUXILIARY SHOULD ASSIST "MARCH OF DIMES"

The National Foundation for Infantile Paralysis is now facing the most acute period in its history and all Chapters in the State of Illinois are realizing the situation is definitely critical.

The severe epidemics in Illinois lasting from 1945 through the present year have thrown a real burden on the 102 NFIP County Chapters. Last year's severe epidemic left many seriously paralyzed patients who are still receiving medical care, both in and out of hospitals. The financial burden on the Illinois chapters has been the greatest in the history of their organization.

It has been necessary for most of the Chapters in Illinois through this five year period to lean heavily upon epidemic aid funds from national headquarters. Inasmuch as the only means of revenue these chapters have is the March of Dimes, it is hoped that the coming drive will provide sufficient funds to carry on the important three fold program of medical care, research and education.

Allied with the Foundation in their vigilance to protect children's welfare the Women's Auxiliary to the Illinois State Medical Society has a unique opportunity to take the lead in the 1951 Campaign. Auxiliaries may actively assist the MARCH OF DIMES by supporting the Drive in their communities, and by adopting the campaign as a Public Service project for January. Individual members may also provide valuable help in publicity, solicitation, special events and other critically needed services by contacting their County Chapter of the Foundation immediately.

ANNUAL CLINICAL CONFERENCE

The Clinical Conference of the Chicago Medical Society is designed to bring physicians new resources to meet their problems in everyday practice. A faculty of thirty-four outstanding speakers will present half-hour lectures and another group of authorities will participate in the four Panels on timely topics.

Each year the Society presents something new which will be of interest to those attending. The special feature for the 1951 Conference will be daily teaching demonstration periods from 11:00 to 12:00 noon and 1:30 to 3:00 P.M. These will include demonstrations of Amputations and Prostheses, Patients Treated with ACTH and Cortisone, Dermatologic Clinic, Proper Application of Casts and Splints in Fractures, Fluid and Electrolytic Balance in Surgery, Local Anesthesia, Use and Misuse of Obstetrical Forceps, Organization of a Blood Bank, Neurological Clinic, Sterility tests, Common Problems in X-Ray Interpretations, Laboratory Tests including tests for Diabetes and Proper Use of Insulin and Prothrombin Tests, and Speech without Larynx.

The scientific exhibits will be new and worthy of real study and carefully selected technical exhibits will prove helpful and time-saving.

Physicians who have attended previous Clinical Conferences know their value and will plan to attend in 1951. This Annual Conference should be a must on every physician's calendar as it has earned the reputation of being one of the outstanding medical conferences in the country.

A DERMATOLOGIST REPLIES

To the Editor:

In your editorial "Dermatology Today and Tomorrow" which appeared in The Illinois Medical Journal October 1950, you pointed out some shortcomings that might be remedied in the field of dermatology. These shortcomings have been remedied due to the rapid advances in this field. It is not true as you state in the editorial that dermatologists "confine their consultation to examining the skin and writing a prescription for a stimulating or soothing ointment". That may have been true in 1900, but is no longer true in 1950 when a dermatologist has at his command and uses daily physical modalities which were unknown some fifty years

ago, eg, x-ray, radium, ultraviolet light, carbon dioxide snow, cautery, etc. (*X-ray and Radium in the Treatment of the Diseases of Skin* by Mac Kee and Cipollaro, this is the Bible used by both dermatologists and radiologists. The authors are both dermatologists).

Allergy of the skin as is well known has been brought to the attention of the medical profession as a whole by a dermatologist—namely Marion Sulzberger. Dermatologists were the first to show the psychosomatic relationship of hives, neurodermatitis and a host of other dermatoses. Injections of antibiotics, vaccines and various chemicals have been used in the treatment of various skin diseases for many years and were first introduced by dermatologists for the treatment of skin diseases. The exanthameta were first described by dermatologists, and there is a book that I might bring to your attention *Skin Manifestation of Internal Disorders* written by a dermatologist. For the past several years and at the present time dermatologists have been doing intensive research on lupus erythematouses, dermatomyositis, sarcoidosis and psoriasis. If these facts had been known, I am sure that the editorial that appeared in your journal would have been more understanding and comprehensive.

Very truly yours,
J. M. Greenhouse, M. D.
East St. Louis, Ill .

MORE ON MULTIPHASIC SCREENING

October 6, 1950

Harold M. Camp, M.D., Editor
Illinois Medical Journal
Monmouth, Illinois

Dear Dr. Camp:

In regard to the editorial "Multiphasic Screening" published in the Illinois Medical Journal, Vol. 98, No. 3, I would like to discuss certain of the statements made by the editor. The 1949 American Medical Association stated, "PUBLIC HEALTH IS THE ART AND SCIENCE OF MAINTAINING, PROTECTING AND IMPROVING THE HEALTH OF THE PEOPLE THROUGH ORGANIZED COMMUNITY EFFORTS. It includes those arrangements whereby the community provides medical services for special groups of persons and is concerned with prevention or control of diseases, with persons requiring hospitalization to protect the community and with the medically indigent." This would seem to indicate that the health departments could properly be interested in the multiphasic screening program.

The aim of this type of procedure is to discover illness in persons presumably well and have them placed under medical supervision. I think you will admit that the "physician who is in practice and in daily contact with the sick" will not ordinarily be examining these presumably healthy people. The Richmond, Virginia plan has worked out with the local medical society and all reports were sent to the private physicians of the persons examined.

As an ex-chairman of the Section on Preventive Medicine and Public Health, I would recommend that the State Medical Society with the aid of the State Department of Public Health, set up a policy on these programs which would enable us as health officers to establish these programs in our areas when desired and which would protect the interests of the family physicians of the persons screened.

Sincerely yours,
John B. Hall, M.D., M.P.H.
Director, Cook County
Department of Public Health

(Editor's Note) We have no objection to multiphasic screening as a diagnostic procedure and stated so in the editorial. We object to the argument that it is being advocated as a means for the control of chronic disease. In addition, we believe that the practicing physician has the equipment and the ability to do these tests. Furthermore, they should take the lead in this matter or become co-participants with the health department performing these procedures. Organized medicine remembers what happened when the public health department began to do serological tests in order to wipe out venereal disease. We should have some assurance that multiphasic screening will not be followed also by the treatment of the abnormalities which are uncovered.

ORIGINAL ARTICLES

Bursitis

Theodore T. Stone, Ph.D., M.D., F.A.C.P.

Chicago

Bursitis, a not too rare clinical entity is herewith being reported because it has not been readily diagnosed and because it does not appear in any of the new or old neurological text books (except in one). The author believes that this syndrome should be included in all the text books in neurology either in a special chapter on muscles, nerves and painful lesions or to be discussed in the differential diagnoses in the above mentioned chapters. It is hoped that the reporting of nineteen cases will stimulate the practitioners in the early appreciation and recognition of such an entity and, therefore, diagnose and treat these patients earlier than before. It will be seen later that in thirteen cases the diagnosis was not made until eight to twenty-three months had passed from the onset of the bursitis. This delay in recognition of the entity caused unnecessary suffering and extra expenditures of money. In the one neurological text book[1] the author stated that this condition is; readily distinguished by the local tenderness of the deltoid and acromial bursae and supra spinatous tendon; there is limitation of the arm movement due to the pain associated with the bursitis; there is no muscle weakness; Roentgen Ray examination of the involved region will show an area of calcification or a shadow of calcification. In some instances (very early) such calcific areas are not visualized. Rose and Carless[2] say that bursae are normally present in twenty-eight regions of the body. They further stated that in many parts of the body exposed to pressure the bursae make an all out attempt to diminish friction and permit a gliding movement. Where in regions exceptional pressure is brought to bear on some prominent structures adventitious bursae are formed and consist of a bibrous wall lined by a serous membrane con-

Professor, the Department of Nervous and Mental Diseases, Northwestern University Medical School, and Division of Neurology and Psychiatry, Wesley Memorial Hospital.

(1). Alpers, Bernard J. Clinical Neurology. Second Ed. Page 156. F. A. Davis Co. 1949.

(2). Manual of Surgery. Rose & Carless. Pages 427-428. Published 1917 in London by Bailliere, Tindall & Cox.

taining a small quantity of serum. Examples of such bursae are (1) porters, who have pressure exerted over the vertebral prominens — this is also known as "hummy"; (2) fish carriers have bursae under the center of the scalp and; (3) there are some bursae over bony prominences arising from malformation or displacement, that is, over cuboid bone in talipes-equinovarus; (4) house maids' knee due to effusion in the pre-patellar bursa.

There are several types of bursitis according to Rose and Carless. These are: (1) acute simple bursitis occurring in gouty and rheumatic individuals. Moderate injuries to these bursae will produce at first a bursitis and later there results a ring or area of calcification; (2) acute suppurative bursitis caused by infections from within or without; (3) chronic bursitis with or without effusion is a rather common form. All of our nineteen cases are from this type. One is where a cavity or bursa is found to be distended with serum. The other is of long standing and occurs more often than any others. Here the bursal wall is usually reticulated and dense and has adhesions, papilliform processes and fibrous cords; (4) chronic fibroid bursitis; (5) chronic tuberculous bursitis; (6) syphilitic bursitis; (7) gouty bursitis. The following areas have special bursae: (1) pre-patellar bursa (housemaids' knee); (2) bursae in popliteal space; (3) bursae beneath the insertion of the semitendinosus and gracilis; (4) bursa beneath tendo Achilles; (5) bursa beneath psoas tendon; (6) gluteal bursa; (7) bursa over the olecranon; (8) bursa over tuber ischii; (9) subdeltoid and acromial bursa.

REPORT OF CASES. The nineteen cases were seen by the author and were not classified until then. There were eleven females and eight males. The average age in the females was fifty-four years and in the males, fifty-six years. All of the cases were unilateral, fourteen on the right side and five on the left. The subdeltoid bursa was involved in sixteen instances and the acromial bursa in three. The duration of symptoms before a proper diagnosis was made was as follows:

1	was diagnosed	2 months after onset	2	"	"	
3	were "	4 " " "	4	"	"	
2	" "	5 " " "	2	"	"	
4	" "	8 " " "	1	"	"	
2	" "	13 " " "				
4	" "	15 " " "				
2	" "	17 " " "				
1	" "	23 " " "				

The x-ray findings were positive in 16 cases and were negative in 3 cases. The positive Roentgen findings in 16 cases showed an irregular ring or area of calcification in either the subdeltoid or acromial bursae. Two of these positive cases were found to have a shadow of calcific substance in the above areas. Three cases showed negative Roentgen findings. This clinical study revealed the following symptoms and signs: (1) Severe pain was present in all cases over the deltoid or acromial bursae. (2) Fifteen cases showed marked local tenderness in the involved regions. (3) The deep reflexes and sensation in the involved extremity were normal in all cases. (4) Limitation of motion in the individual involved arms was found in 14 cases. These patients said that the pain was responsible for this difficulty. (5) There was no muscle weakness in any of the 19 cases. (6) Positive Roentgen signs were found in 16 cases. (7) Only 10 patients showed the bursal wall to be reticulated, dense and made up of fibrous cords. (8) There was a history of gout in only one case and a history of chronic rheumatism in another. The past history was of no significance in the other 17 patients.

There are three methods of therapy of bursitis. They are: (1) x-ray irradiation of the calcified ring or shadow; (2) surgical removal; (3) injection of a local anesthetic (3 to 5 c.c.) into the calcified ring or shadow. This is best done under fluoroscopy. All of our 19 cases received 4 or 5 x-ray irradiations in a period of 2 to 3 weeks. All have made a complete and permanent recovery. After each x-ray treatment there was an exacerbation of severe additional pain in the involved areas. Two weeks after the last x-ray exposure the pain vanished and has not returned to date.

SUMMARY. Nineteen cases of chronic subdeltoid and acromial bursitis are herewith reported. All of them are of the chronic type. Sixteen showed positive evidence of calcific deposits or shadows in the involved bursae either in the right and left upper extremities. All of them made an excellent and permanent recovery with four or five x-ray irradiations. In three cases showing no positive x-ray findings a diagnosis

of bursitis was made because of the severe pain over the subdeltoid and acromial bursal regions. X-ray irradiations produced a cure in these three cases. These nineteen cases having severe pain in either the arms or shoulders makes it necessary, in the opinion of the author, to consider it in the differential diagnoses of various syndromes in the shoulder and arm. It also should be considered in the differential diagnosis of cervical rib, affection of the scalene anticus muscle, various and sundry joint problems such as arthritis, fractures, dislocations and neoplasms.

30 No. Michigan Avenue

Trends in Tuberculosis Work

Otto L. Bettag, M.D.
Tuberculosis Control Officer, City of Chicago, and Medical Director, Municipal Tuberculosis Sanitarium.
and
Meyer R. Lichtenstein, M.D.
Chief, Medical Service, Municipal Tuberculosis Sanitarium, Chicago.

This paper is intended as a brief resume of the advances being made in tuberculosis work at the present time. The attack on diseases of the chest is progressing rapidly in several different directions. This brief outline is primarily for those who are not familiar with this branch of medical work.

Case Finding.—Case finding methods are being extended and improved. Mass x-ray surveys are being used on an ever increasing scale. The photofluorograms are of great value not only to detect tuberculosis but also to detect cardiac disease and carcinoma of the lungs. In the search for tuberculosis, the finding of earlier cases by the mass x-ray survey brings about a much higher percentage of rapid arrest of the disease. It also prevents the dissemination of the disease among a greater number of contacts.

Mass surveys, wherever done in this country, almost uniformly discover that about 0.1 per cent of those x-rayed have active pulmonary tuberculosis. These are commonly asymptomatic persons, often engaged in their usual occupations. The death rate from tuberculosis increases with age in males, and therefore surveys of elderly men are of exceptional value. Many of these individuals masquerade as cases of chronic bronchitis and spread tuberculosis among their contacts.

Besides tuberculosis, the mass survey has been found of exceptional value in uncovering cardiovascular disease and tumors of the chest contents. The possibility of finding carcinomas of the lung while still amenable to cure by pneumonectomy is of tremendous importance.

The routine hospital admission chest x-ray is an important method of survey. If each hospital took a routine chest film on the admission of every patient, there is little doubt that a great many cases of tuberculosis would be uncovered. At present it is commonplace for a patient with pulmonary tuberculosis to enter a hospital and receive treatment for various conditions and be discharged without a diagnosis of his pulmonary lesion. Everyone who is familiar with tuberculosis realizes that active cases with positive sputum are frequently asymptomatic and that it is often impossible to discover such cases by physical examination alone. The chest film is a necessary part of diagnosis in many cases. Every patient who enters a hospital is entitled to a complete diagnosis and a chest film is necessary for this purpose. Hos-

Presented May 25, 1950, at General Assembly, Annual Meeting, Illinois State Medical Society, Springfield, Illinois.

pitals are being urged to put this into effect but thus far only a small percentage is doing so. Every physician should urge his hospital to institute this advance in the diagnostic management of patients.

No physician is doing his duty in tuberculosis case-finding unless he routinely obtains chest films of all diabetics and all pregnant patients. These two groups require constant observation.

Diagnostic Consideration.—The diagnostic use of tuberculin is becoming ever more important because of the increasing number of negative reactors among the general population.[1] Any patient who does not react to an adequately done tuberculin test almost certainly does not have tuberculosis. An adequately done test requires the use of two strengths of tuberculin by intra-cutaneous injection. This should be done preferably with tuberculin P.P.D. (purified protein derivative), first strength and second strength. O.T. (old tuberculin), in equivalent strengths, is now being furnished gratis by the Illinois Department of Public Health.* Their material can be kept at room temperature for many months without deterioration, because of a special diluent. Physicians would do well to keep tuberculin records on all their patients.

Increasing knowledge of chest diseases requires a warning as to the limitations of the diagnostic x-ray film. Final diagnosis should not be made upon the x-ray appearance of the lesion alone. Many other diseases may simulate the appearance of tuberculosis on the x-ray film. It is absolutely necessary to use all the diagnostic means at our disposal in verifying the exact diagnosis in every case. No patient has a thorough workup for tuberculosis unless the following has been done: history (including industrial history), complete physical examination, chest x-rays, Mantoux tests and sputum examinations. Sputum cultures, gastric wash cultures and guinea pig inoculation may also be necessary. Bronchoscopy, bronchograms and other special tests may be needed.

Among the new laboratory methods which appear promising is the slide culture technic. At present, culture of sputum or gastric washings for tubercle bacilli requires a wait of three to eight weeks. With the slide culture method, which is now in its experimental stages, this wait may be cut to six days or less. If and when this method becomes usable on a large scale, it will be of great aid in the rapid diagnosis of patients with pulmonary tuberculosis.

Therapeutic Considerations.—Dihydrostreptomycin has practically replaced streptomycin because of its lower toxicity. It can by no means be considered curative in pulmonary lesions but is very valuable as an aid in the management of many patients. It is particularly helpful in those patients with complications such as tuberculous laryngitis[2], enteritis[3], endobronchitis, draining sinuses and fistulas[4]. In miliary tuberculosis and tuberculous meningitis, its use may be life saving, although the percentage of ultimate cure is not large.

Recently para-amino salicylic acid has been added to our armamentarium.[5] This simple drug is a bacteriostatic agent against the tubercle bacillus. It is particularly useful because it can be given orally and has very little toxicity. Furthermore, resistance to the drug rarely occurs and it may be given over a period of many months or possibly years. It has recently been found that the combination of dihydrostreptomycin and PAS has great advantages. At the Municipal Tuberuclosis Sanitarium of Chicago we routinely give one gram of dihydrostreptomycin twice weekly and three grams of PAS four times daily for periods of sixty to ninety days. Such combination therapy has been found to be very effective. It has the additional advantage that resistance to streptomycin is considerably delayed. It thus becomes possible to use streptomycin repeatedly or over longer periods of time.

TB-1 (thiosemicarbasone) is a new drug, still in the experimental stage of development. Toxic reactions are quite marked in its use. Its effectiveness has not yet been determined but opinion in this country appears to indicate that it is not as effective as PAS or streptomycin. It may possibly have some use in the treatment of complications in patients who are resistant to other drugs.

Collapse Therapy.—During the past few years there has been a marked tendency toward increasing the use of pneumoperitoneum and a corresponding decrease in the use of pneumothorax. The main reason for this trend is the attempt to avoid the complications of pneumo-

*Personal communication. Clifton Hall, M.D., Bureau of Tuberculosis, Illinois Department of Public Health.

thorax. Empyema and air embolism constitute extremely serious complications. Inadequate collapse of cavities because of extensive adhesions frequently renders pneumothorax ineffective. Pneumoperitoneum, on the other hand, has very few complications and is therefore a relatively safer procedure. It is of value in bilateral pulmonary disease and may be useful after pneumothorax has failed. Because of these facts, pneumoperitoneum is now being used about four times as often as pneufothorax. In spite of this, however, pneumothorax is still the procedure of choice where an effective collapse can be obtained for unilateral disease with suitable indications.

Surgery.—Thoracoplasty is being resorted to earlier than before. In patients with unilateral apical cavities not amenable to other forms of treatment, it is best to do the surgery early. Prolonged waiting may result in disease of the opposite lung. Excellent results are being attained with thoracoplastics on increasing numbers of patients. Quick conversion to negative sputum and return to useful occupation are achieved in about seventy-five per cent of patients suitable for this operation.

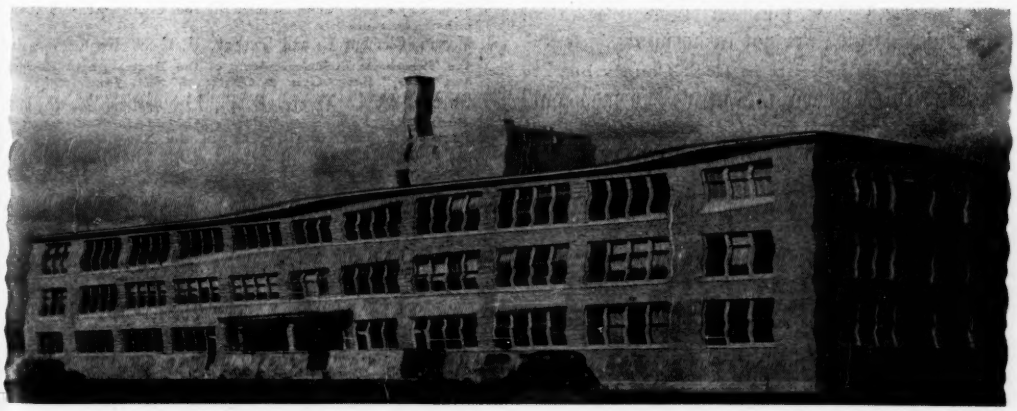
Extrapleural pneumothorax is a useful procedure for a small percentage of patients having the proper indications. Paraffin packs and plastic substances are useful in a limited number of patients.

Pneumonectomy, lobectomy and segmental resections are being used on an increasing scale, both in tuberculous and non-tuberculous diseases of the lungs. Cavities of the lower lobes, which are frequently difficult to collapse adequately, can often be dealt with effectively by lobectomy. The so-called "destroyed lung" with extensive necrosis can be removed in toto by pneumonectomy. These procedures have become much more feasible since the availability of chemotherapeutic agents. It appears probable that the indications for resection of the lung for tuberculosis will be clarified and defined more accurately in the near future.

Exploratory surgery of the chest is mandatory in the presence of a pulmonary nodule which cannot be explained after the usual workup. If bronchoscopy and Papanicolaou stain are negative, exploration should be done at once, so that carcinoma may be dealt with before metastases occur. To wait and observe such cases over a period of time may result in avoidable mortality. Early pneumonectomy is the only measure which can give complete cure of bronchiogenic carcinomas.

Prophylaxis.—Isolation of the positive sputum patients with tuberculosis in sanatoria remains the most important method of prophylaxis available. It has been the main factor in the tremendous reduction of mortality from tuberculosis. Early discovery and immediate isolation of patients are the most effective means at our disposal in cutting down the incidence of this disease. The prevention of infection in the Middle West has reduced the percentage of tuberculin reactors to a low level.

The use of BCG vaccine (Bacillus Calmette-



Mt. Vernon State Tuberculosis Hospital for occupancy during 1951.

Chicago State Tuberculosis Hospital to be completed during 1951.

Guerin) in the prophylaxis of tuberculosis is a controversial issue at the present time. Those who favor its widespread use point to its apparent effectiveness in reducing the mortality in some of the Scandinavian Countries; others point out that the mortality rate has dropped as much in Iceland, where BCG was not used. Many important questions regarding the effectiveness and duration of resistance from BCG are as yet unanswered. Whether BCG is used or not, however, it should be remembered that isolation is still the most effective means at our command.

Increasing Facilities.—The shortage of hospital beds for tuberculosis patients will soon be improved by the new State Tuberculosis Hospital built at Mt. Vernon, Illinois, (100 beds), and the one under construction in Chicago (500 beds). In Chicago alone there are approximately one thousand five hundred known cases of tuberculosis which are not in hospitals.

Tuberculosis patients in Cook County but not residents of Chicago are being "farmed out" to nearby sanatoria until the Suburban Cook County Sanitarium District Board can build their own facilities of approximately 300 beds. Additions have recently been made to the Peoria and Rockford Municipal Tuberculosis Sanitaria.

CONCLUSIONS

Tuberculosis work is becoming much more complex but has been much more effective within the past few years. The use of chemotherapy, collapse therapy or surgery, separately or in combination, is rendering the prognosis much better. Tuberculosis is still a large scale problem, however, and a great deal of active work, over a long continued period, will be necessary to reduce its incidence to a minimum.

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The Rehabilitation of the Stutterer

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I. Description Of The Disability As It Is Manifested In Children And Adults.—Stuttering (sometimes called stammering) is a form of anxiety-tension, manifested as a disturbance in the fluency of speech. Blocks may be seen as delay in initiating speech, tense pauses, repetitions or prolongations of sounds, or interjection of sounds, frequently accompanied by grimaces, bodily movements, holding of breath, etc. In the average adult stutterer, roughly 8 to 10 per cent of the words are affected. There is marked variation in the stutterer's performance, ranging from practically no stuttering in singing, rhythmic speech, chorus speaking, speaking when alone, etc. to relatively most severe difficulty as a rule in situations involving unusual demands for clear and effective communication to important or overly critical listeners.

In very young children the disturbance, if it can be so-called, is scarcely distinguishable from normal speech, involving chiefly or solely easy, simple repetitions of syllables, words, or phrases to a degree usually within the normal range for early childhood speech. With increasing self-consciousness and anxiety, traceable generally to inept handling by parents or teachers, tension appears, the easy repetitions give way to blocking in its more aggravated forms, and the effects of the resulting social handicap and frustration become increasingly apparent and significant.

The average age of onset is about three years; in few cases does the difficulty begin after the age of six years. The ratio of male to female stutterers varies with age level and certain family and environmental conditions, ranging from 1 to 1 to 10 to 1. From 6 to 10 out of every 1000 persons are stutterers. They comprise one of our comparatively large handicapped groups.

II. The General Effect Of The Disability On The Person's Social, Educational, And Vocational Adjustment.—Although equal in mental ability to non-stutterers, stutterers are retarded in school, at the eighth grade level, up to one year on the average. College stutterers average about 10 I.Q. points above the average student, indicating that only the brighter stutterers tend to undertake higher education. No adequate estimates of vocational disadvantage have been made, but general knowledge indicates that the handicap probably amounts to an average of roughly 25 per cent at least in earning power. During World War II about half of the stutterers who were examined at induction stations were accepted, and there seems to be no clear basis for differentiating them from those who were rejected; evidently as a group they made a commendable showing in the armed forces, many achieving officer rank. Clinical and test studies of personality have shown that as a group stutterers do not satisfy significantly the criteria of the psychoneuroses. They come close to approximating general population norms. Their special areas of maladjusment center around the anxiety reactions they tend to make to the embarrassing and handicapping frustrations arising out of their stuttering. Personal and social maladjustments, due to this or other factors, tend, when present, to aggravate the speech difficulty.

III. Present Knowledge Regarding Etiology.—Theories of causation range from those featuring heredity, constitutional predisposition, or neurophysiological instability (e.g., "cerebral dominance" and "biochemical inbalance" hypotheses) to those emphasizing psychological factors (e.g., the psychoanalytic, conditioned response, and semantogenic theories). Most of the scientific studies of stuttering have been made since 1925, and as research methods have become increasingly refined and dependable, less and less support has been forthcoming for any organic or physical theory of stuttering, and more and more support for psychological hypotheses has been accumulated. Currently, the theory

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that stuttering is a *learned* form of hypertonic avoidant behavior, motivated by anxiety concerning the anticipated occurrence of non-fluency and its social consequences, appears to be receiving particularly serious consideration by the majority of speech pathologists most closely concerned with laboratory and clinical studies of the problem. The issue is not closed, however, and much research remains to be done.

IV. *Present Methods In Examination And Diagnosis.*—Distinctions must be made between stuttering and certain other stutter-like disturbances, such as those seen in certain cases of brain damage, certain clearly psychoneurotic mechanisms, and the excessive nonfluency or cluttered speech of some normal speakers. The distinctive feaures of stuttering are: (a) rather well defined and consistent patterns of tension; (b) characteristic affective reactions, particularly a clearly focused anxiety regarding anticipated non-fluency; (c) predictable variations and consistencies in stuttering with specified changes in conditions (marked reduction in frequency of stuttering with repeated reading of a passage, elimination of stuttering during chorus reading, practical elimination of stuttering under conditions of a masking noise which prevents the stutterer from hearing his own voice, etc.).

The case history should stress particularly the conditions surrounding the onset; parental policies and parent-child relationships; social experiences crucial in the development of the problem; conditions under which severity is increased or decreased; and the imporant details of the presenting problem viewed comprehensively. Due attention is to be given also to the general developmental, medical, school, social and family history.

In the majority of cases stuttering appears to develop *after diagnosis.* It is practically always first diagnosed by laymen, usually the parents, rather than experts, and what these laymen diagnose as stuttering is, as a rule, merely the repetitions and hesitations characteristic of *normal* childhood speech. Studies made in Iowa Child Welfare Research Station and the University of Iowa Speech Clinic have established the fact that all children between the ages of 2 and 6 years repeat sounds, words and phrases, the average child showing 45 such repetitions per 1000 words. The resulting parental concern, and admonitions to the child to go slow, take his time, start over, stop and think, take a breath, etc., tend to bring about the tensions, anxiety and blocking symptomatic of stuttering. Other possible patterns of onset conditions are also to be checked. The details of the stuttering behavior, as observed, are to be recorded. Psychological tests and physical examination procedures are to be employed as indicated.

V. Present Methods of Treatment.—Very young stutterers are nearly always best treated indirectly by means of properly detailed counseling of the parents. In some cases techniques such as play therapy may be indicated. Modifications of aggravating parental attitudes and policies and details of home management are almost always advisable. The majority of very young stutterers respond well and fairly rapidly to such relief of environmental pressures, provided they have not yet developed well established anxiety-tension response patterns.

Stutterers who have developed marked anxiety-tensions respond less well to treatment, but worthwhile relief can be achieved in most cases and complete or nearly complete recovery is not extremely rare. Chronic stutterers almost always require therapy, together with such environmental modifications as can be managed. Direct treatment divides generally into (a) psychological counseling and (b) directed changes in habitual speech performance. Properly instructed, most stutterers can learn to do their stuttering more simply, with decreased tension, and less emotional disturbance. In many modern clinics voluntary or purposeful stuttering is advocated accordingly—and also as a direct means of reducing anxiety, in accordance with the old rule of combating a fear by doing the thing one is afraid to do. Detailed procedures are to be found in Chapters 2 and 5 and the appendix of the book, *Speech Handicapped School Children,* and in other references listed at the end of this article.

Some therapists favor slow or rhythmical speech patterns, "chewing" speech, and other techniques which are designed to insure relatively immediate and complete fluency. Other therapists look with disfavor on such practices, contending that they ignore fundamental motivation underlying the stuttering, and are essentially anxiety-producing. In general, the present-day stuttering specialists employ a comprehensive approach, striving in individual cases for a proper balance of psychological counseling, en-

vironmental modification, alteration of the stuttering pattern, and speech practice. It appears to be particularly important to bring about a marked increase in the amount of talking and social participation by the stutterer.

VI. *General Criteria Of Successful Clinical Results And Outcomes Of Treatment.* Improvement is to be gauged in many ways, such as: (a) decreased frequency of stuttering in specified situations; (b) decreased tension and complexity in the stuttering pattern; (c) a more frank and unemotional attitude toward the difficulty; (d) an increase in amount of talking done and in the variety of situations in which it is done; (e) improved feeling tone and more positive self-evaluations; (f) improved social relationships, etc.

VII. *Agencies And Resources That Must Be Enlisted In The Management Of These Disorders.*—Professional qualifications essential for clinical work with stutterers are defined by the American Speech and Hearing Association, the professional organization in this field. Highly qualified speech pathologists characteristically hold the Ph. D. degree in speech pathology, which today is obtainable in several American universities. In treating stuttering, the speech pathologist properly works in cooperation not only with the physician, psychologist and sometimes the psychiatrist, but also with the stutterer's teachers, employers, club leaders, associates and family. In modern clinics and in public school programs group therapy is customarily combined with individual instruction and counseling, and proper attention is given to the stutterer's activities outside the clinical periods. It is a program requiring teamwork among all those who influence the stutterer's speech adjustments.

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THE PHILOSOPHY OF HEADACHE

Much has appeared in recent literature on the subject of the symptom, headache. Patients and profession alike seek a certain cure, preferably simple to prescribe, easy to use, universal in applicability, and as dependable as a guillotine in relief of head pain. Actually, the cause and the cure of intrinsic headaches lie within the individual; the cause and the cure of secondary headaches depend upon the pathogenesis and the treatment of the primary disease. There is no royal road to either cure, for patient or for physician. He who would cure headache, his own or someone's else, must be infinitely patient, anatomically, physiologically, and psychiatrically curious, and able to face failure with resource.

By intrinsic headaches are meant those headaches not secondary to a known disease process, i.e., migraine, histaminic cephalgia, tension headache and muscle tension headache. These, and the secondary headaches which may occur in hypertension, myofibrositis, arterio-sclerosis, allergy, and psychoneurosis make up the bulk of chronic headaches seen in daily practice and demanding medical intervention. *Excerpt: Office Management of Some Common Types of Headaches, Dorothy Macy, Jr., M.D., M.S. (Med.), associate in medicine, Woman's Medical College of Pennsylvania, J.A.M.W.A., Sept.,* 1950.

Medical Treatment of Epilepsy Today

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This survey has been prompted by a desire to evaluate and present the current medical treatment of epilepsy. Five hundred patients from the Neurological and Epilepsy Clinics of the Illinois Neuropsychiatric Institute were included in this series. All have had electroencephalographic studies and have been followed for at least four months while on their most recent type of medication. Most of these patients have been referred to the Clinics because of difficulty in controlling seizures and hence represent a selected group. Particular attention has been paid in this survey to the clinical type of seizure, the electroencephalographic findings, response to treatment, and certain aspects of prognosis.

The patients have been divided into groups on a clinical basis, using diagnoses of grand mal, petit mal, psychomotor, or Jacksonian seizures (or a combination of these). Those patients with an aura, loss of consciousness, generalized tonic-clonic convulsion, tongue-biting, and incontinence have been placed in the grand mal category. The petit mal type consists of momentary black-outs accompanied at times with vasomotor disturbances, blinking of the eyelids, without aura, and occurring most frequently in childhood. The psychomotor type includes psychic auras, impairment of consciousness, confusion, dream-like trances, and automatisms such as plucking movements of the hands, swallowing, or chewing movements. The patients may carry out complicated coordinated activity for which they are amnesic. The term Jacksonian epilepsy has been used for cases of focal seizures (whether or not they consist of a progressive march).

Seventy-six per cent of the cases were of the grand mal type either alone or in combination with petit mal or psychomotor seizures (Table 1). Thirty-eight per cent of the patients had psychomotor or psychomotor and grand mal seizures, a figure which is comparable with that of 40% found by Roseman[1]. The number of pure petit mal cases in our series is small because the majority of these patients are children and are treated routinely in the Pediatric Clinic. In general, it is those children with a combination of seizures or those who do not respond to medication who have been referred to the Neurological or Epilepsy Clinic. Forty-two per cent of the patients had more than one clinical type of seizure.

TABLE 1

CLINICAL CLASSIFICATION

CLINICAL DIAGNOSIS:	# CASES	%
Grand Mal	169	33.8
Psychomotor	57	11.4
Petit Mal	12	2.4
Jacksonian	39	7.8
Grand Mal and Psychomotor	135	27.0
Grand Mal and Petit Mal	76	15.2
Grand Mal, Psychomotor, and Petit Mal	2	0.4
Atypical	10	2.0
TOTAL	500	100.0

ELECTROENCEPHALOGRAPHIC FINDINGS

The percentage of normal electroencephalograms differs markedly for each type of epilepsy (Table 2). In those patients who clinically had only grand mal seizures approximately 20% had normal electroencephalograms and only 49% had seizure discharges. Eighty-seven per cent of the patients with clincal psychomotor attacks showed seizure discharges in their electroencephalograms. Not one of the patients with a combination of grand mal and petit mal attacks had a normal electroencephalogram, and 95% had seizure discharges. Interestingly enough, only 64% of the patients with Jacksonian epilepsy had focal abnormalities in their electroencephalogram even if amplitude asymmetry is included as an abnormality.

The high percentage of abnormal electroencephalograms may be accredited to the fact that most of these patients had sleep studies, especially those who showed no abnormality during

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TABLE 2

RESULTS OF ELECTROENCEPHALOGRAPHIC STUDIES

Clinical Diagnosis	Normal E.E.G.		Abnormal E.E.G.								Total Cases
			Abnormal Frequency		Seizure* Discharge		Slow-Wave Focus		Amplitude Asymmetry		
	#	%	#	%	#	%	#	%	#	%	#
Grand Mal	33	19.5	46	27.2	83	49.0	7	4.1	—	—	169
Psychomotor	5	8.7	2	3.5	50	87.7	—	—	—	—	57
Petit Mal	—	—	—	—	12	100.0	—	—	—	—	12
Jacksonian	1	4.4	13	10.2	28	71.8	2	5.1	4	10.2	39
Grand Mal and Psychomotor	6	4.4	13	9.6	114	85.1	2	1.4	—	—	135
Grand Mal and Petit Mal	—	—	3	3.9	72	94.7	1	1.3	—	—	76
Grand Mal, Petit Mal, Psychomotor	—	—	2	100.0	—	—	—	—	—	—	2
Atypical	2	20.0	1	10.0	6	60.0	1	10.0	—	—	10
TOTAL	47	9.4	71	14.2	365	73.0	13	2.6	4	0.8	500

*The type of electroencephalographic seizure discharge has not been specified. In some cases, the type of seizure discharge does not correspond with that of the seizures observed clinically. When both abnormal frequencies and seizure discharges were seen, the record was classified only under the category of seizure discharges.

the waking record. One can see (Table 2) that the per cent of epileptics with normal electroencephalograms may vary from 0 to 20% depending upon the type of clinical seizure. This wide variation may explain the differences obtained by other workers such as Abbott and Schwab[2], Jasper[3], and Finley[4], whose series have not been so subdivided.

RESULTS OF TREATMENT AND PROGNOSIS

The response of patients to medication was divided into four groups: (1) seizure-free, (2) greatly improved (75-100% reduction of attacks), (3) moderately improved (25-75% reduction of attacks), and (4) no effect (less than 25% reduction of attacks). The results of treatment vary with the type of seizures (Table 3). The prognosis is dependent upon the type of seizure, the frequency of clinical attacks, and the electroencephalographic findings.

Forty-seven per cent of the patients with grand mal seizures were seizure-free while only 15% were unimproved. Many of these patients have been seizure-free for two or three years and some for as long as ten years. Of the 80 seizure-free patients, 27% had normal electroencephalograms while another 31% had only an abnormal frequency with no seizure discharges. An excellent prognosis for complete control of attacks may be given when the clinical attacks are relatively infrequent and there is a normal electroencephalogram. The patients with the poorest prognosis are those with fairly frequent attacks and electroencephalographic abnormalities of a

TABLE 3

RESULTS OF THERAPY

Clinical Diagnosis	Seizure Free		Greatly Improved		Moderately Improved		No Effect		Total Cases
	#	%	#	%	#	%	#	%	#
Grand Mal	80	47.3	40	23.6	24	14.1	25	15.0	169
Psychomotor	6	10.5	26	45.6	10	17.5	15	26.3	57
Petit Mal	4	33.3	3	25.0	1	8.3	4	33.3	12
Jacksonian	7	17.9	16	41.0	7	17.9	9	23.0	39
Grand Mal and Psychomotor	26	19.2	65	48.1	20	14.8	24	17.7	135
Grand Mal and Petit Mal	1	50.0	—	—	—	—	1	50.0	2
Grand Mal, Petit Mal, and Psychomotor	1	50.0	—	—	—	—	1	50.0	2
Atypical	2	20.0	4	40.0	1	10.0	3	33.3	10
TOTAL	145	29.0	180	36.0	75	15.0	100	20.0	500

focal character, especially spike and slow-wave formations.

Ten per cent of the patients with psychomotor seizures were seizure-free for periods of six months to two years. Frequently after a long period with no seizures, these patients again begin to have attacks, and when this happens, they appear especially refractory to medication unless used both in large doses and in combination. Although only 10% of the psychomotor patients were seizure-free, 45% were greatly improved, and some of these patients had attacks so negligible that they were able to maintain full employment. Some of these patients in the psychomotor category have marked personality disturbances when their seizures are stopped or greatly reduced in number. Prognosis for complete control of attacks is poor. The best prognosis is for those patients with infrequent attacks and a normal electroencephalogram both awake and asleep. However, patients with infrequent clinical attacks but with many seizure discharges in their electroencephalogram may respond quite well to medication. Patients with psychomotor seizure discharges in their electroencephalogram have only a 25% chance of being controlled. One must not be too discouraged in regard to prognosis, however, until these patients are given a trial of anti-convulsant medication.

The small number of patients with petit mal seizures limits the value of percentage results. From other reports (Lennox[5], Davis and Lennox[6]) the percentage of patients seizure-free and greatly improved is higher than our figures would indicate.

Eighteen per cent of the patients with clinical Jacksonian attacks were seizure-free, and 41% were greatly improved. It is extremely difficult to determine the prognosis for control of the attacks as it depends to a large extent upon the etiology. One must wait until after a trial of medication before giving a definite prognosis.

In patients with both grand mal and psychomotor attacks, 19% were seizure-free, and 48% were greatly improved. Concerning the prognosis one may state that the grand mal attacks may be stopped even though the psychomotor attacks continue. This explains in part the large number of greatly improved patients in this group. If the electroencephalogram shows psychomotor seizure discharges, these patients have only a 50% chance of their seizures being controlled. As in the pure psychomotor group, if, following a long seizure-free period while on medication, an exacerbation associated with abnormal electroencephalographic findings occurs, the prognosis for renewed control is poor. Control of the seizures of these patients and of those with psychomotor attacks alone depends to a certain extent upon supportive psychotherapy and satisfactory environmental conditions. Whether the psychomotor seizure discharges in the electroencephalogram are unilateral or bilateral, there is no apparent difference in response to treatment.

Twenty-five per cent of the patients with grand mal and petit mal seizures were seizure-free and 34% were greatly improved. The prognosis depends on the frequency of attacks and on the electroencephalographic changes. Electroencephalographic findings of petit mal variant seizure activity associated with slowing or other seizure activity; and petit mal seizure activity with multiple spikes associated with pure grand mal seizure activity carry a bad prognosis.

TYPES OF TREATMENT

Various anti-convulsant medications have been used on these patients, and it has been possible to evaluate the effectiveness for specific types of seizure. Contrary to the report of Price at al[7], we have found glutamic acid to be of little value. Similarly, the ketogenic diet[8] has been of little value in our group of patients. (This may be due to the fact that the patients usually do not follow the diet because it is rather unsavory.) Bromides have been found to be of some value: however, their anti-convulsant action is much less than that of phenobarbital which has the further advantage of few side effects. Combinations of drugs have been found to be of much greater value than any drug alone, and smaller doses of each drug may be given when used in combination. Usually, the anti-convulsant action of one drug enhances that of the other without increasing the side effects. The exceptions appear to be dilantin [9, 10] and mesantoin[11, 12] which have similar toxic manifestations such as ataxia and nystagmus, and mesantoin[13, 14, 15] and tridione[16, 6] which have a common toxic effect of depression of the hematopoietic activity of the bone marrow.

One of the most effective combinations appears to be dilantin and phenobarbital (Table

TABLE 4

RESULTS OF TREATMENT WITH
COMBINATION OF DILANTIN AND PHENOBARBITAL

Clinical Diagnosis	Seizure Free		Greatly Improved		Moderately Improved		No Effect		Total Cases
	#	%	#	%	#	%	#	%	#
Grand Mal	45	41.6	29	26.8	14	13.0	20	18.4	108
Psychomotor	4	13.3	10	33.3	6	20.0	10	33.3	30
Grand Mal and Psychomotor	16	18.1	35	39.8	13	14.8	24	27.2	88
Grand Mal and Petit Mal	6	18.7	5	15.6	6	18.7	15	46.8	32
TOTALS	71	27.5	79	30.6	39	15.0	69	26.7	258

4). This combination is most effective in the treatment of grand mal seizures, maintaining 41% of the patients seizure-free. It is least effective in the treatment of patients with grand mal and petit mal and may cause an increase in the petit mal attacks. It is not indicated in patients with pure petit mal seizures. Patients with grand mal seizures not controlled with a combination of dilantin and phenobarbital may be controlled with a combination of dilantin and mesantoin and phenobarbital, or all three drugs together.

The psychomotor type of seizures is extremely resistant to medication, and it has been found that a combination of drugs, frequently three or four, is invariably necessary. A combination of dilantin, mesantoin, and phenobarbital has proved satisfactory in some cases. Phenacetylurea (Phenurone) has been used in this institution for over two years. A preliminary report by Gibbs et al[17] showed it to be quite effective against psychomotor attacks. Since that report, it has been found to be particularly effective in combination with other drugs in the treatment of psychomotor seizures. Tridione has been reported by Davies and Spillane[18] to increase psychomotor attacks. On the whole we agree with this statement; however, tridione in combination with other anti-convulsant medication is occasionally beneficial in psychomotor cases.

Although the number of petit mal patients in this series was small, and their seizures difficult to control, we agree with Lennox[5], Davis and Lennox[6], and Perlstein and Andelman[19] about the value of tridione in the treatment of these patients. We have also obtained encouraging results with paramethadione (Paradione)[6].

Jacksonian attacks are usually of symptomatic etiology and may be amenable to surgical therapy. The possibility of surgical benefit should always be considered first. Those patients who cannot be helped by surgical measures appear to respond best to phenobarbital alone or to a combination of mesantoin and phenobarbital.

In patients with grand mal and psychomotor attacks, a combination of medications similar to those used for psychomotor attacks is necessary.

Patients with grand mal and petit mal attacks in combination are extremely difficult to treat because dilantin (which is effective against grand mal seizures) frequently causes an increase in petit mal attacks, while tridione (which is effective against petit mal) may cause an increase in grand mal seizures. A combination of medicines is essential to control the attacks of these patients, and the drugs must be balanced individually for each patient. A combination of dilantin and phenobarbital is indicated when grand mal seizures are predominant while tridione and phenobarbital are indicated in those patients with predominantly petit mal seizures. A combination of tridione, dilantin, and phenobarbital may be given in resistant cases and the dosage balanced to control the attacks. Since the original report on phenurone[17], it has been used more and more in patients with grand mal and petit mal attacks. We have found it to be highly effective against both types of seizures and in no instance did it appear to cause an increase in one type of seizure.

Although the clinical seizures of patients with petit mal variant seizure activity in their electroencephalogram vary greatly, often we have found a combination of amphetamine sulfate (Benzedrine) and phenobarbital to be effective.

DOSAGE OF ANTI-CONVULSANTS

The most frequent mistake in treating epileptics is that of using insufficient quantities of the drug employed. The dosage of anti-convulsants

TABLE 5

DOSAGE OF ANTI-CONVULSANTS

DRUG	MINIMAL DOSE	AVERAGE DOSE	MAXIMAL DOSE
Phenobarbital	0.1 grams daily	0.1 grams daily	0.1 grams 3x daily
Dilantin	0.1 grams b.i.d.	0.1 grams t.i.d.	0.1 grams 5x daily
Mesantoin	0.1 grams daily	0.1 grams q.i.d.	0.2 grams 6x daily
Tridione	0.3 grams b.i.d.	0.3 grams q.i.d.	0.6 grams 6x daily
Bromides	1.0 grams t.i.d.	1.0 grams t.i.d.	(Blood Bromide (150-300 mgm.%)
Phenurone	0.5 grams b.i.d.	0.5 grams q.i.d.	1.0 grams 5x daily

which is adequate is highly variable and consequently individualized treatment of the epileptic is necessary. The minimal and maximal doses are given in Table 5; however, it must be realized that the maximal dose of any anticonvulsant for a given patient is that dose which controls the convulsions and at the same time does not cause serious side or toxic effects.

SIDE REACTIONS AND TOXIC EFFECTS

In this series of patients, there was one toxic reaction to phenobarbital consisting of dermatitis. The side effect most frequently observed is hypersomnia, which, however, is only present with large doses.

Out of 300 patients who had been treated with dilantin, 6.6% developed ataxia, nystagmus, and dizziness. Hyperplasia of the gums was present in 4.3% of the cases, while gastric disturbances (nausea, vomiting, gastric pain, or discomfort) were present in 3.6% of the cases. Three and three tenths per cent developed a rash. Some patients had more than one group of the toxic symptoms listed above. No changes in the blood count were observed. One patient ingested 3.0 grams in a suicidal attempt. The effects were those of heavy sedation and confusion with impairment of coordination. One patient who was receiving extremely high doses of dilantin developed ataxia, nystagmus, diplopia, and hyperplasia of the gums. There was impairment of vibratory sensation in the ankles, and a unilateral Babinski response was observed. These signs and symptoms disappeared with withdrawal of the drug.

Mesantoin and tridione have both been reported to cause agranulocytosis and hypoplastic anemia. Other toxic reactions include rash, fever, and cervical lymphadenopathy. These reactions occur in about 8% of patients taking mesantoin. Whenever these symptoms develop, the drug should be discontinued immediately. Overdosage of mesantoin may cause ataxia, diplopia, nystagmus, and hypersomnia. We have not observed hyperplasia of the gums. When patients are taking either mesantoin or tridione, they should have blood counts at intervals not exceeding one month.

The symptoms of bromidism are well-known, and one must be watchful for mental confusion, rash, and cerebellar symptoms in those patients taking bromides.

Phenurone may cause personality disturbances, anorexia, disturbance in sleep, and in one case in this series, leucopenia. Two patients developed toxic hepatitis. There have been no fatalities in our patients treated with this drug.

SUMMARY

1. Five hundred cases of epilepsy have been reviewed with respect to type of clinical seizure, electroencephalographic findings, and response to anti-convulsant medication.

2. Grand mal attacks were found in 33.8%; psychomotor attacks in 11.4%; Jacksonian seizures in 7.8%; and petit mal attacks in 2.4%. In 42.6% of the series, there was more than one type of seizure (grand mal and psychomotor seizures were most common). Two per cent were atypical.

3. Almost 20% of those with only grand mal seizures had normal electroencephalograms, while none of those with both grand mal and petit mal attacks had normal brain wave patterns.

4. Forty-seven per cent of patients with grand mal seizures were free of attacks with suitable medication, while only 10% of those with psychomotor seizures could be completely freed of attacks.

5. The prognosis as to control of seizures depends on the type and frequency of clinical attacks and the electroencephalographic findings.

6. Combinations of anti-convulsant medications appear to be more effective than any single drug.

7. The various types of anti-convulsant drugs and combinations of drugs are discussed, and their toxic effects noted.

8. A higher per cent of improvement in the control of epileptic seizures may be obtained with individualized dosage and appropriate combinations of anti-convulsant drugs.

The author wishes to express his appreciation to Mrs. Ashton Graham and Miss Betty Vilas for their assistance and to Drs. Sugar, Bailey and Gibbs for their helpful advice.

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POST GRADUATE UROLOGICAL SEMINAR

The South Central Branch of the American Urological Society holds its Seminar in Dallas at the Adolphus Hotel, January 29th through February 2nd. We would appreciate it if you would print a notice of the coming meeting in your Journal. Thanking you very much for this courtesy,

R. E. Van Duzen, M.D.
Chairman

Trained employees are more valuable to an organization than new employees, and periodic health surveys may prevent many physical disasters and prolong the working life and capacity of faithful workers. Edward I. Salisbury, M.D., F.A.C.S., New York State J. Med., September 15, 1950.

We may yet, through the wonderful persistence of . . . research workers, reach the situation described in Samuel Butler's Erewhon, a community in which ill health was regarded as a crime and a man accused of "pulmonary consumption" was convicted and sentenced to imprisonment, at hard labor, for the rest of his miserable existence. Claude M. Fuess, Ph.D., New England J. Med., September 21, 1950.

The Responsibilities of the Physician — A Problem of Medical Education

(A Symposium)

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Dr. Olson: The distinguished panel which has accepted the invitation of the Department of Medicine to discuss one particular phase of medical education lends weight to the importance of the topic: The Responsibilities of the Physician. I am happy to introduce to you our guests — Dr. Anderson, Dr. Armstrong, Dr. Hoffman, Dr. Manlove, Dean Ryan, and Dean Sheehan. They represent the medical schools of the West Side Medical Center, the Cook County and Presbyterian Hospitals which are an integral part of our teaching schedule, and the Council on Education and Hospitals of the American Medical Association.

I am hopeful that we can reach some definite conclusions in spite of the limited time which is available to us. First, some of my own ideas on the problem which we are about to discuss. It seems to me that the responsibilities of the physician must be divided into (1) his responsibility towards the profession as a whole, and (2) his personal responsibility which extends to the patient as well as to himself and his own conscience.

The professions, as a whole, can set up standards of technical skill as well as standards of conduct. The relative importance of skill vs. conduct varies in the several professions. A clergyman, for instance, has little technical skill but assumes a great deal of personal responsibility, while a civil engineer can work with a great deal of technical skill applied effectively in a detached and impersonal manner. Unlike these extremes, the physician must live up to both. In spite of the recognition of this fact, the emphasis of medical education, at this time, rests on skill and facts, and one wonders often whether we prepare our students adequately for the requirements of their profession. I feel strongly that one cannot divorce scientific accomplishments of medicine from the ethical principles under which they are practiced. In an emergency, for instance, a physician must act rapidly or, as we like to say, "instinctively". Naturally, this "instinct" is a combination of both sound medical training and emotional conditioning — the "responsible physician" must fulfill this dual requirement. I would like to return to the problem of the responsibility of the profession as a whole. Dr. Anderson, how do you feel that the standards set

down by organized medicine the American Medical Association to be specific, might influence the teaching of personal responsibility in our medical schools?

Dr. Anderson: The non-scientific responsibilities of the medical profession were well outlined by Roscoe Pound in the New England Journal of Medicine of September 8, 1949.[1] I should like to quote parts of this article directly: "Let me repeat what we mean by the term profession when we speak of the old recognized professions. We mean an organized calling in which men pursue a learned art and are united in the pursuit of it as a public service — as I have said, no less a public service because they make a livelihood thereby. Here, from the professional standpoint there are three essential ideas — organization, learning and a spirit of public service . . . . . .

"The trade association exists for the purposes of the trade as a money-making activity. The medical society exists primarily for the purposes of medicine, not of the doctor of medicine, and for the advancement of the healing art . . . . . What medical associations have done for advancement of medicine I need not recount to you."

I am certain that many of medicine's accomplishments have been possible only because physicians have worked in organized groups. As individuals they would have been unable to advance the art of medicine as effectively and in the public interest. For example, in groups physicians have established acceptable standards for undergraduate medical education. They have improved the intern and resident training and the standards of hospitals. They have stimulated the legislatures to promote health departments, to regulate the traffic in foods and drugs, etc. Much more must be done, it is true. In our educational programs, we should emphasize the responsibility of our students to the society in which they live. Many students are critical of the activities of organized medicine. I suspect much of this distrust arises from lack of proper interest in the activities of medical societies on the part of many teachers.

Dr. Ryan: The current attempts to organize a "Student American Medical Association" seems to make possible an important step toward the goal outlined by Dr. Anderson. The students would be represented at the meetings of the American Medical Association — they plan to have a journal of their own, a development which would emphasize to the student that he is already a part of the profession and as such, has an obligation which he must assume. Such groups who have already begun to develop their own school programs would seem to provide an excellent channel through which the student could be indoctrinated in his formative years in the responsibilities, obligations and ethics of the medical profession. Dr. Cole has had much more responsibility than I in the promotion of these efforts locally and I wonder whether he would care to comment on the program.

Dr. Warren H. Cole, Professor of Surgery: The student does not get close to the problems of organized medicine until late in his career as a physician. This interest should be stimulated at a younger age — the only way that this can be done is the inclusion of the student in the activities of organized medicine. The "Student American Medical Association" might well be the answer to some of these problems. You must be careful, however, to maintain a balance so that the students' activities are neither too independent nor stifled by too much authority from the parent organization.

Dean Olson: The speakers thus far have given us their opinion as to how the professional responsibilities of the medical students can be developed by professional organization. I should like to call on Dr. Armstrong to outline his prescription for the education in personal responsibility of the junior medical student at a time when he first comes in contact with patients.

Dr. Armstrong: In a teaching hospital, I feel this can be best done by giving the student the feeling that he is an integral part of the team caring for the patient. This team should consist of attending man, resident, intern, and student, all working towards one common purpose and all sharing some of the responsibility. This is not correlated with the type of bed, private or public, but rather with the type of individual who heads the service. He sets the keynote for the type of cooperation which will be followed through in the management in the teaching hospital. In the old German medical schools there was the Geheimrat type of professor to whom all others on the staff were subordinate and made

[1]New England Journal of Medicine — Sept. 8, 1949, pages 351-357

to feel so. In the German scheme teamwork was virtually unknown. The professor must have the time and willingness to utilize his time in listening to his students and directing their thoughts, both scientifically and ethically. This type of teamwork is desirable, both in teaching and in practice.

Dr. Sheehan: I do not want to speak disparagingly of teamwork. However, in recent years the trend has been to emphasize scientific rather than character background in the selection of students. By the time an individual reaches medical school age, his personality is well crystallized. Therefore, one must choose applicants with the type of character thought to be desirable in a physician. This is not easy. In our institution we base this judgment on the testimony of men of discernment who have associated with the candidates. After the students have been admitted to this school, we teach the physician's moral obligation to the patient outright. It depends fundamentally on the individual's philosophy of life. In our thinking this should consist not only of honesty, integrity, and responsibility to society as constituted but should embody a religious responsibility. Intellectual concepts alone are not sufficient motivation. Exposing the student to Christian moral concepts is no problem in our institution. We feel sure that most of our students in their professional lives will be motivated by these principles.

Dr. Manlove: At this point I would like to take up Dr. Sheehan's remarks on the proper selection of students. Character can be modified to a certain extent after the individual has been admitted to the medical school. I believe that we underestimate the problems which confront the student who faces the responsibilities of the profession. The Department of Psychiatry perhaps can help somewhat by giving the student insight into the physician-patient relationship, thus helping the doctor to bear the patient's wrath and to eliminate compulsiveness in medicine.

Dr. Hoffman: I cannot agree with Dr. Manlove's contention that character can be changed. When I think of the many students, interns, and residents who have passed through our hospital in the former years, I have come to suspect that not much can be done once we get hold of the future physicians. Even at that early station in life a gentleman will behave like a gentleman no matter what situation confronts him, and I suspect strongly that all our efforts will be in vain when we try to make a saint out of the scoundrel. I found that even for the best of us it must make some difference whether we examine the president of the Coca Cola Company or one of the unfortunate victims of circumstances who are brought to a large city hospital. I doubt very much that medical education can accomplish anything in this particlar sphere of personal responsibility. Perhaps there should be a more thorough method of selecting students.

Dr. Robert W. Keeton, Professor of Medicine: It seems to me that this discussion of medical education has been slanted toward educating the medical student in honesty, integrity, and courtesy. One must not forget that students arrive at the university after spending fourteen years in school. This includes three or four years in college, in which they have associated with other students in the classroom, on the athletic field, and in social events. By this time they have learned to show respect to their associates and have developed the habits of courtesy. Honesty and integrity are virtues with which the parents and children have been wrestling since birth. At the school age the teachers take up the battle. It would, therefore, be highly unpedagogical to assume that medical students are ignorant in these fields. The problem therefore concerns instruction as to what is honesty and integrity in the field of medicine. It is unthinkable that a student previously known to be dishonest could be converted into an honest gentleman by taking a medical course.

Medical education is a continuing activity. The student begins his instruction in the medical school and continues it after graduation through postgraduate courses, programs of his medical society, and conferences of his hospital staffs. In the medical school his objective is the acquisition of knowledge and after graduation the practice of medicine. In this latter period he is concerned primarily with the application of his knowledge to the relief of suffering and to the provision of a livelihood, and only secondarily to the acquirement of further knowledge.

Medical knowledge consists of (a) factual knowledge, the individual elements of which may be classified as building stones; (b) certain laws

and conventions which can be best described as medical logic. Medical logic consists of the concepts and the partitions into which the facts are fitted together. It is easy to teach facts. But to teach the use of facts requires continuous evaluation on the part of medicine. This is an unending effort not terminated by the end of medical school.

In some people motivation toward the correct solution of medical problems is found in the great satisfaction of solving the problem, in the escape from the proddings of the pathologist's voice in the morgue, and in the reward of grades. The acquirement of medical knowledge teaches honesty in medical matters.

During the period of medical education after graduation, society or other factors may substitute counter motivations which put a stress on honesty. He is not alone in this respect. Every professional man and in fact everybody must select for himself a brand of social behavior. Indeed, the medical man is in a rather favored position. He is a public servant and, as such, subjected to close scrutiny. If he does not apply his factual knowledge to the practice of good medicine, the community soon finds it out and he is branded a poor doctor. When he joins a hospital staff and a medical society he runs into rules to guide his ignorance and curbs to insure that he does not commit a crime in the field of medical reasoning and logic.

Dr. Hoffman: In other words, Dr. Keeton, the student must pass the judgment of his teachers. If the members of the staff are idealists and men of high character, the students will naturally emulate them and will thus follow the good life.

Dr. Olson: I am impressed by the term "the good life" which Dr. Hoffman has selected. Again and again when a patient is selecting a physician he will ask, "What kind of a doctor is he?" If all physicians were uniformly good this question would not arise. It seems to me we are forced to the conclusion that some physicians must practice in a manner which invites criticism. I can now state my original question in much simpler words, What can we do to educate *good* physicians?

Dr. George E. Wakerlin, Professor of Physiology: I believe that there are three areas in which we should encourage education to promote a greater sense of responsibility among medical students. First, the premedical curriculum should include more of the humanities. Second, in medical school a course on the "art of medicine" should be inserted even at the expense of some of the medical sciences. This should include not only ethical concepts but some of the practical business principles for a medical practice. Third, we should teach by precept from the head of the department on down to the intern.

Dr. Olson: Dr. Wakerlin has expressed a thought which I believe is of the greatest significance namely that teaching can only be as good as the teachers. We may summarize the discussion by saying that the panel has brought out clearly that the profession organized in effective groups has been able to promote standards for professional responsibility. The continuous effort of the medical schools to graduate students with personal responsibility, on the other hand, depends on the proper selection of students and, if I interpret the consensus of the panel correctly, on teaching by precept. In conclusion we can state with conviction that medical teaching is deficient unless the art of medicine becomes an integral part of the science of medicine.

Results of Chest X-Ray Screening in Hospitals

John E. Madden, M.D.

Decatur

By chest screening, for the purposes at hand, we mean the use of photoroentgen technique in some form, the technical factors of which have become more efficient and the necessary procedure has been comparatively simplified. In our city we are using two units; one at Decatur & Macon County Hospital and one at St. Mary's Hospital that are of identical type and a third unit of similar type at the Macon County Tuberculosis Sanatorium. We have not been pioneering, in that when our photo-Roentgen units were obtained, many operating conveniences had been developed and were incorporated in these units. Our procedure had been well established in large centers and we had details of the program in Cleveland, Chicago and other areas. In our hospitals, the photo-Roentgen unit provides two stereoscopic 4 x 5 films, which are developed in special hangars, read in a 4 x 10 stereoscope and then filed in a separate special file. We have separate 200 MA transformers powering rotating anode tubes, with exposure controlled by a Morgan timer.

The need for a program of this type probably cannot be accurately measured—but statistics show that over 15,000,000 persons enter a general hospital every year, and if all of these were examined, it would reach the largest group other than industrial, and as a whole would reach a different cross section of the people, as the greater proportion of these individuals would not have had an industrial survey. Many people entering the hospital are more susceptible to tuberculous infection because of inroads on their resistance by other pathological changes.

Because of the limited financial stature of many hospital employees, and their close contact with the patients, it is perhaps more important that they be checked upon employment and again routinely, than in some other industries which now regularly require chest studies.

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It is also highly important that a tuberculous individual does not contaminate non-tuberculous patients during their hospital sojourn. These are a few of many good reasons that justify the need for this type of examination.

The procedure is not particularly costly. In some institutions under optimum circumstances, the per patient cost is as low as 25 cents. In our institutions, we suspect that the per patient cost lies between 60 and 65 cents. *All* of these studies are stereoscopic 4 x 5 films and the film cost at least could be cut in half by not obtaining a stereoscopic study (which we definitely like better, but which does not appear to be a necessity.) Other types of photo-Roentgen procedure are considerably cheaper, but become more difficult to the radiologist. In Decatur & Macon County Hospital, we refer to this study as "P.R. Chest" (photo-roentgen chest) and *not* routine chest. The term "Routine" is reserved for a 14 x 17 two meter study at 500 MA technique, which is obtained on suspected patients.

The greatest single impediment to us, is getting the patient to the x-ray department. Many times, especially at the beginning of the enterprise, the "admission" films became the "before discharge" films; and in other instances, the accident patient or otherwise incapacitated patient on admission, was discharged after hours or over the weekend and no film was obtained.

Upon arrival, the patient's admission slip for the x-ray department is numbered to correspond with the number that will appear on the film, the patient is then positioned and a photoroentgen stereoscopic exposure is made. The patients are then returned to their room and development is done later on the same day at a time convenient to the darkroom technician. The usual time consumed per patient is between one-half and one minute. When dried, the films are read in groups, usually once per day and an on the spot report completed by checkmarking the findings on a printed form. This

photo-roentgen film does not provide a diagnosis, but a "suspicion of". The printed form or report includes three suspicions, which are as follows; "positive - advise routine roentgenogram," (meaning a 14 x 17 film), or "suspect possible tuberculosis," with various forms of TB listed, or "suspect a non-tuberculous lesion," with a listing of cardiac, bronchitis, pneumonia, pleural effusion, neoplasm, etc. It the lesion suspected is tuberculous, an additional report is sent directly to the tuberculosis sanatorium for Dr. Loewen's records and follow-up. This is not done in the films that we believe are not suggestive of tuberculosis. The film is then recorded numercially and a report is filed alphabetically on a small file card. If a patient is re-examined at a subsequent date, the same card is used and the additional films are filed together in the same envelope. At the end of each month a summary of the case examined is sent to the Macon County Visiting Nurse & Tuberculosis Association group—broken down into three classifications, tuberculous, non-tuberculous and negative.

This survey has been carried out in many larger cities and with larger groups, than we observe in this section of the State, and many areas are probably much more efficient than are we, and also have been functioning longer, permitting an opportunity to establish a more smoothly operating set-up. These larger groups report about as high as 3% positive tuberculous cases. Necessarily this 3% is a potent factor in the spread of tuberculosis, and should be discovered and properly segregated as indicated for their own welfare and that of those persons with whom they come in contact.

In Macon County, photo-roentgen case finding was begun on June 2, 1947 at Decatur & Macon County and St. Mary's Hospitals as a coordinated program of the local tuberculosis association. In the period between June 2, 1947 and March 24, 1950 (at which time this portion of the report was obtained), 8,588 photo-fluorograms were obtained — 3,729 at St. Mary's and 4,859 at Decatur & Macon County Hospitals. Of this group, 75 were suspected of tuberculosis at St. Mary's and 124 at Decatur & Macon County, for a total of 199, of which 165 were referred to the sanatorium. Out of these 165, 66 were studied — 2 cases proved active; 12 were known inactive cases and no further study was made; 25 were not eligible for follow-up as their residences were out of Macon County; 62 that were referred were not followed as they were uncooperative; and 34 cases were never referred to the sanatorium.

In this period of time, there were 3 minimal active tuberculous cases with negative sputum in St. Mary's Hospital and 1 in Decatur & Macon County. There were 4 moderately advanced cases in St. Mary's and 2 in Decatur & Macon County. Of these 6, 4 presented positive sputum and 2 negative. There were 7 far advanced cases at St. Mary's and 5 at Decatur & Macon County—all of which had positive sputum. Six cases were missed; 2 minimal at St. Mary's and 1 at Decatur & Macon County; 1 moderately advanced and 2 far advanced cases at St. Mary's none at Decatur & Macon County. Three of these had positive sputum, which is dangerous when unknown, as proper protection can be utilized to avoid infection. One of these cases was reported after a State bus film was made, but the attending physician seemed unaware of the condition, and the patient was in a general hospital for three weeks as a cardiac patient before this danger was corrected.

In addition, 3 moderately advanced and 10 far advanced cases were found on large films, which had been ordered immediately by the referring physician because of chest symptoms. Five of these cases, all far advanced, were not previously known. Eight of this group — 3 moderately advanced and 5 far advanced, were known by their physician and the tuberculosis sanatorium as active tuberculosis prior to admission. One case of minimal tuberculosis was accidentally found while looking for a substernal thyroid gland.

In passing, for the sake of the record, there were 6 active extrapulmonary lesions, all with negative sputum, as follows — 2 pleural effusions, 1 tuberculosis of the kidney, 1 tuberculous peritonitis and 1 tuberculous meningitis.

In conclusion: — photo-fluorography as a routine procedure in general hospitals, though not widely established is no longer in an experimental stage.

It provides a vast source of individuals, who will not be examined under other circumstances, and when discovery of an active unknown case is

made before too many people have been exposed too long, its value is probably immeasurable.

We are examining about 50% of those admitted to the hospital, the other 50% are equally as important and as the percent examined approaches 100, so proportionately does its relative efficiency. We are of the opinion this per cent can be increased sharply by a re-location of the photo-fluorographic unit as close to the admission office as possible, with the procedure taking place immediately before the patient is transferred to his or her room. This necessarily cannot occur in some cases because of the nature of the illness or accident injury.

These photo-roentgen studies also have been the first film to indicate lesions other than tuberculosis, such as pathological cardiac findings, non-tuberculous lesions, neoplasms and other miscellaneous conditions which we have not attempted to enumerate.

While photo-fluoroscopy in a general hospital may provide an occasional organizational headache, it merits full support of all concerned — patient, doctor, nurse, hospital management — as frequently it is more important to more people than other commonly accepted routine laboratory procedures.

Early tuberculosis, like early carcinoma, usually responds favorably, while in advanced stages it may be too late, but tuberculosis is preventable; and increasing impetus in this field of endeavor can produce fruitful and gratifying results.

Decatur & Macon County Hospital

ALCOHOLISM

We must learn more about the psychology of the alcoholic. We must test different therapies for alcoholism under controlled conditions and gather more data. We must try to find, if we can, what effect the treatment has on the psychology of the patient. We must examine without bias all treatment approaches presented on a rational basis or in which some claims for success have been made. We must not, however, think that we know, as yet, why a given treatment fails or succeeds. Lengthy follow-up studies are necessary and, if possible, we must try to follow those patients whom we study for periods of two to ten years. One of our greatest problems at present is to get the funds necessary to make such research feasible. The problem is expensive to the individual and to the community. Research would cost far less than is spent on alcoholic beverages by drinkers. Alcoholism is a serious medical problem. It is a serious social problem. It is more baffling than almost any other problem in psychiatry. *Excerpt: Alcoholism, Problems of Treatment and Research, Allen J. Enelow, M.D., Topeka, Kans., Rocky Mountain Med. J., Sept.,* 1950.

CASE RECORDS OF THE COOK COUNTY HOSPITAL

KARL MEYER, LEO M. ZIMMERMAN, DEPT. EDITORS

Tuberculosis of the Acromioclavicular Joint With Subscapular Bursitis and Effusion

Samuel J. Taub, M.D., F.A.C.P., Irving A. Friedman, M.D., and J. Birney Dibble, M.D.
Chicago

The incidence of tuberculous involvement of the joints and bursae of the shoulder has been reported frequently, especially in the subdeltoid[1,5] and sub-trochanteric bursae.[2,6] However, only few references have been made to tuberculosis of the acromio-clavicular joint.[3,1] We have recently observed an interesting case of acromioclavicular tuberculosis with subscapular bursitis and effusion in a patient with Laennec's cirrhosis. It is believed that this case is worthy of presentation because of the unusual clinical course.

The patient, M.K., age 51, white male, entered Cook County Hospital on September 1, 1949 with the complaint of ankle and abdominal swelling for three weeks which receded after resting and increased on walking. During this period he had been troubled with a persistent cough productive of small amounts of greenish sputum, weight loss, constipation associated with bright red blood occasionally mixed with the stool, and definitely diminished urinary output. The color of his urine became dark red-brown over a period of three weeks, and he gave a vague history of night sweats for the past three years.

Past History: He had "spinal meningitis" in 1929 with complete recovery, and the left clavicle was fractured four years ago with good union. Alcoholic history consisted of heavy drinking since 1921 including a daily intake of four glasses of wine, twenty glasses of beer and occasional whiskey. The past five months before admission his intake of alcohol included twenty glasses of beer plus several "shots" of whiskey daily.

Physical Examination: The patient was a fairly well developed white male who appeared malnourished. The abdomen was greatly distended and the legs were markedly edematous. He was intelligent and cooperative. The blood

From the Medical Service of Dr. Samuel J. Taub, Cook County Hospital, Chicago, Illinois

pressure was 140/100, temperature 100° F, pulse 98 per minute, respiration 22 per minute. The sclerae appeared slightly icertic and the fundi were normal. His tongue was beefy red and there was obvious cheilitis. Auscultation of the chest revealed noisy respiration with inspiratory and expiratory wheezes in all areas. Heart borders were normal and there were no murmurs heard. Ascites was present and the liver could be palpated six fingers below the costal margin. The spleen was not palpable. Rectal and proctoscopic examination showed small internal hemorrhoids.

Laboratory Data: On admission the hemogram showed 67% hemoglobin, 3.43 million erythrocytes, 11,300 leukocytes with 78% polymorphonuclear leucocytes, 15% lymphocytes, 7% monocytes. Urinalysis revealed a trace of albumin and 4 plus urobilinogen; but no sugar or abnormal microscopic findings. Serology; agglutinations for typhoid, salmonella, and brucella; and sputum examinations for acid-fast bacilli were negative. Non-protein nitrogen was 22 mgm. percent, total proteins 6.7 grams percent with albumin 3.1 grams and globulin 3.6 grams, cephalin flocculation 3 plus, thymol turbidity 7.7 units, cholesterol 102 mgm percent, alkaline phosphatase 1.6 units, icterus index of 14. The BSP test gave 30.3% retention and the prothrombin determination was 88 percent. Original chest film revealed blunting of the costophrenic angles and thickening of the interlobar fissure on the left. Complete upper and lower gastro-intestinal X-ray examination with barium sulfate was normal.

Course in Hospital: The patient was placed on a low salt, high protein, high carbohydrate diet, with brewer's yeast tablets, vitamin A, C, D, thiamin intramuscularly, and mercurial diuretics. The ascites increased as did the leg edema. He had a persistent temperature of 100 to 102 degrees Fahrenheit, and had a deep hacking cough with moderate dyspnea. 100 units of Penecillin was given every 3 hours without effect, and on September 27, he was started on Steptomycin, two grams daily. Despite mercurials, the ascites became very marked so that it was necessary to perform a paracentesis on September 29, 1949 at which time almost three gallons of clear yellow fluid with a specific gravity of 1018 and 1.5 grams of protein per 100 cc of fluid was obtained. Routine and acid-fast cultures on this material were negative. On October 1, 1949, dullness and rales were noted in the right lung base, and a chest film showed right lower lobe pneumonitis. This condition cleared very rapidly, and the temperature slowly dropped to normal.

On October 4, 1949, the patient passed tarry stools, felt weak and the blood pressure dropped to 110/70. Several blood transfusions were given and the bleeding ceased. The dyspnea slowly subsided, and the streptomycin as well as the liver regime including methionine and choline was continued. Repeated liver function tests were essentially the same as on admission. On October 27, 1949, left pleural effusion was found on examination and chest film. However, the patient remained afebrile and the leg edema subsided slowly. It was necessary to perform a paracentesis about every two weeks because of marked abdominal distension and subsequent dyspnea. Several cultures of the ascitic fluid for tubercle bacilli were done and found to be negative. Mantoux tests done in dilutions of 1:1000 and 1:10,000 were negative. The left pleural effusion persisted although the appetite was good. Frequent urine examinations revealed 1 plus

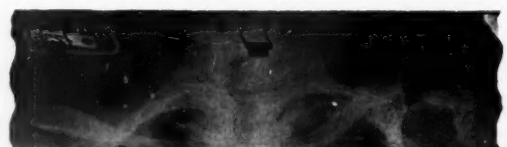

Figure 1. PA view of chest showing left pleural effusion

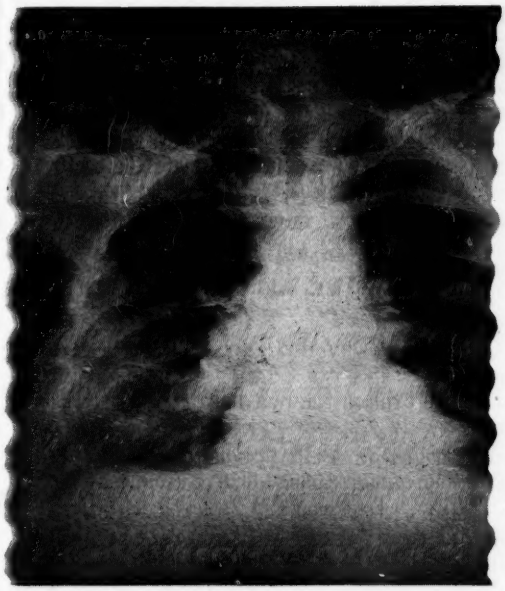

Figure 2. PA view of chest showing increased density in right lower lung field in region of subscapular mass.

urobilinogen but no bile. Mercurials seemed to have no effect on the ascites but reduced leg edema.

On the evening of January 20, 1950, the patient noted a fluctuant mass under the right scapula, which seemed to get larger over night to the size of a small football. This mass remained the same for 5 days, when aspiration was performed and about 150 cc of thick amber fluid with 4.4 grams of protein per 100 cc was obtained. The cystic area quickly refilled, and at this time it was noted that as the ascites progressed the subscapular mass receded. When it was necessary to tap the abdomen, an astonishing observation was made in that the subscapular mass rapidly became larger. At first this seemed to be only coincidental, but on three successive episodes of tapping the abdomen and observing the cystic back mass as the abdominal fluid accumulated, the same inverse relationship was observed, namely, enlargement of the cystic subscapular mass when fluid was removed from the abdomen and recession as the ascites again appeared. On February 14, 1950, after paracentisis, 30 cc of sterile methylene blue solution was placed in the peritoneal cavity. The next day, as was expected, the subscapular mass was very prominent, and aspiration revealed the same thick amber fluid. It did not gel and had a specific gravity of 1020 with proteins of 5.1 grams per 100 cc. Papanicalou smear was negative, but culture for acid-fast organisms revealed definite tubercle bacilli. X-ray of the right acromio-clavicular joint showed destructive changes. The chest surgery consultant suggested the diagnosis of subscapular bursitis with effusion secondary to acromioclavicular pathology. Aspiration of the right acromioclavicular joint gave 1 cc of thick bloody material which gave a negative culture. The patient was again placed on streptomycin for ninety days with very little change. When seen in August of 1950, the subscapular mass had receded somewhat, but his general condition was about the same.

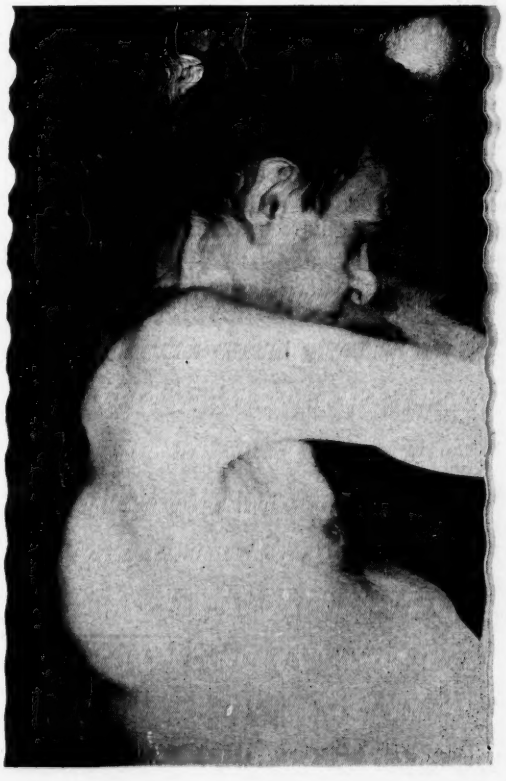

Figure 3. Side view of patient showing subscapular mass and ascites.

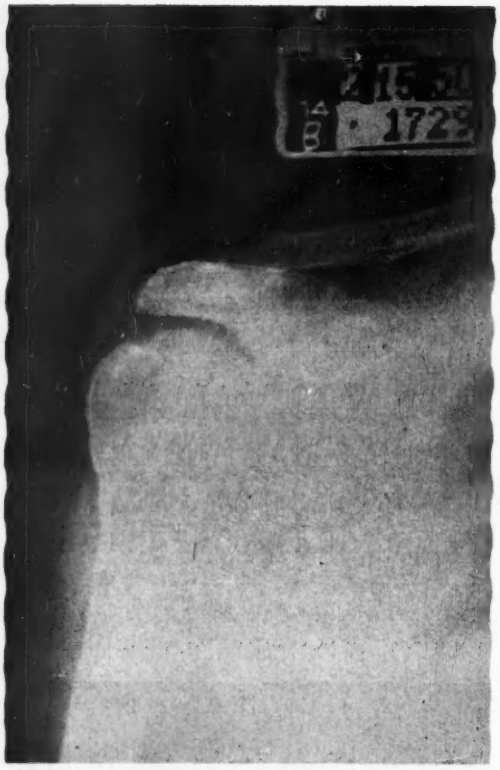

Figure 4. X-ray of acromioclavicular joint showing destructive changes.

Discussion: Although tuberculous bursitis has been reported frequently especially in the subdeltoid and subtrochanteric areas, we believe this case to be of especial interest because of the marked subscapular effusion and the patient's clinical course. Many diagnoses were offered for this case before the cultures returned, including a cyst in this area, fistula from the pleural cavity with fluid migration, and hematoma, all of which were easily ruled out. The most interesting and peculiar aspect to the many attending men and residents who saw this case was the relation of the mass in the subscapular region to the ascites as described above. Of course, the culture of the fluid for acid-fast organisms was of utmost importance, and although the ascitic fluid cultures were negative, and thoracentesis was never done, it is believed that the patient had tuberculous pleural effusion, tuberculous peritonitis as well as the subscapular bursitis. We have not been able to explain the dynamics of the variation in the size of the subscapular mass depending on the degree of ascites present. We also believe the subscapular tuberculous effusion may be connected with the acromio-clavicular tuberculosis.

Summary: A case of Laennec's; cirrhosis with tuberculous subscapular bursitis and effusion is presented, possibly associated with acromioclavicular joint involvement. An interesting and confusing phenomenon of change in the size of the subscapular cystic mass depending on the degree of ascites was observed, but could not be explained.

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PATHOLOGY CONFERENCES

EDWIN F. HIRSCH, DEPARTMENT EDITOR

PRESENTATION OF THREE CASES

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St. Luke's Hospital
Chicago

SACCULAR ANEURYSM OF THE LEFT VENTRICLE OF THE HEART FOLLOWING CORONARY OCCLUSION.

This white male, aged 53 years, entered St. Luke's Hospital in the care of Doctor Walter Hoeppner on February 19, 1950 with a history of having had two previous attacks of coronary occlusion. The first had been ten years, and the second four years before his admission to the hospital. The second attack was associated with marked ventricular tachycardia from which he recovered promptly. His activities, however, were restricted because of the cardiac condition. At 6 P.M. on the day of admission he had a sudden attack of pain in the chest with radiation to the left shoulder, and associated with tachycardia. He was given morphine and sent to the hospital. His blood pressure was 120/80 mms. Hg; his pulse was 160 per minute; his heart tones were rapid and faint. The blood had 22,500 leucocytes and 5,020,000 erythrocytes per cu. mm. The nonprotein nitrogen of the blood was 47.5 mgms. and the cholesterol 365 mgms. per cent. The urine had a large quantity of albumin. The leucocytes remained elevated. The sedimentation rate rose from 9 mms. on the first day to 51 mms. in one hour on the fifth day. The electrocardiogram disclosed ventricular tachycardia. The patient received anticoagulants, quinidine, and supportive therapy but his blood pressure dropped to 80/60 mms. Hg. on the first day. There were transient reversals to normal rhythm of the heart, rales appeared in the chest, the heart rate continued to fluctuate, the blood pressure was unstable, and on the eighth day the patient died suddenly.

The essential portions of the anatomic diagnosis of the necropsy (trunk) are:

Atherosclerotic occlusion of the anterior descending branch of the left coronary artery of the heart;

Old healed infarct and hypertrophy of the myocardium of the left ventricle of the heart;

Large calcified aneurysm with mural throm-

bosis of the lateral wall and septum of the left ventricle of the heart;

Chronic adhesive fibrous pericarditis;

Chronic passive hyperemia of the liver, spleen, kidneys, and lungs; etc.

The heart had the changes which were directly related with the illness of the patient. The pericardial sac was adherent to the anterior surface of the left ventricle in a region 4 cms. in diameter. The markedly enlarged heart with 2 cms. each of aorta and pulmonary artery weighed 800 gms. The pulmonary veins and artery had smooth linings. The leaflets of the pulmonic valve were thin, the circumference of the ring was 10 cms. The right ventricle from the attachment of the pulmonic leaflets to the apex was 14.5 cms. and from the tricuspid ring to the apex it was 13 cms. The myocardium of the right ventricle near the septum in front had a thickness of 7 mms. and there were 2 mms. of subepicardial fat. There was only a remnant of Eustachian valve and the foramen ovale was closed. The circumference of the tricuspid ring under slight tension was 15 cms., the leaflets were thin. The lining of the right auricle, the right auricular appendage and of the right ventricle was smooth. The lining of the left auricle and of the left auricular appendage was also smooth. The columnae carneae and papillary muscles of the left ventricle were hypertrophied and the cavum was dilated. Under slight tension the circumference of the mitral ring was 13 cms. The leaflets of the mitral valve had slight fibrous and fatty changes. In the anterior wall of the left ventricle and encroaching on the septum was a large, saccular aneurysm 7 by 5 cms, 2 cms, deep and with a large red-brown mural thrombus. The deeper portions of the thrombus contained semi-liquid brown blood material and portions of the fibrous wall of the aneurysm were calcified (Figure 1). The length of the left ventricle from the mitral ring to the apex was 11.5 cms. and from the attachment of the aortic leaflets to the apex it was 12 cms. The circumference of the aortic ring under slight tension was 6.5 cms. The leaflets were thin. The sinuses of Valsalva were deep and the mouth of each coronary artery was widely patent. There was a small accessory right coronary artery. The root and arch of the aorta had marked atherosclerosis. The myocardium of the left ventricle measured along the septum

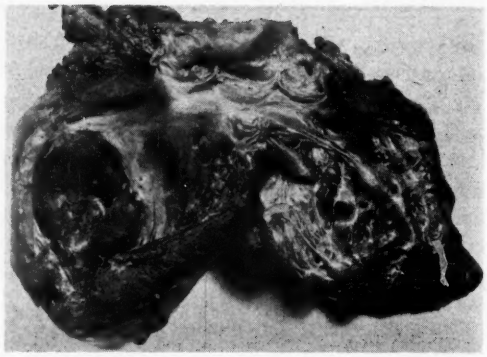


Figure 1. Photograph illustrated the saccular thrombosed aneurysm of the left ventricle of the heart.

behind at the mitral ring level was 1.8 cms. thick, near the apex it was 2.2 and between it was 2 cms. Surfaces made by cutting the septal myocardium away from the aneurysm were tan-brown fibrillar tissue. Surfaces made by cutting the lateral wall of the left ventricle had toward the apex a large fibrous scar continuous into other calcified fibrous tissues. The right coronary artery had a moderate atherosclerosis of its lining but the lumen was widely patent. The anterior descending branch of the left coronary artery had marked atherosclerosis and at a level 2.5 cms. from its origin the channel was practically occluded by an atheromatous plaque with hemorrhage. The circumflex branch of the left coronary artery also had a marked atherosclerosis but its lumen was patent. The changes in the viscera otherwise were essentially those of a chronic passive hyperemia. The lungs had a hypostatic bronchopneumonia. Histological preparations of the myocardium near the aneurysm were scar tissue. Adjacent muscle tissue were necrotic and infiltrated by polynuclear leucocytes, histologic evidence of recent infarction.

COMMENT

The effect of a coronary occlusion is essentially a diminished blood flow to the tissues beyond the arterial lesion. The amount of decreased blood flow determines the extent of the subsequent necrosis of the myocardium and replacement of the contractile muscle by scar tissues. Within limits, fibrous scar tissue replacement of the infarct occurs without a localized dilatation of the ventricle chamber but infarcts of larger size, during or after the healing phase, become aneurysmal. The pouch fills with laminated thrombus

material which tends to become organized or may soften into semiliquid material. Huge aneurysms near the apex of the left ventricle have cast shadows in roentgen films of patients which were diagnosed as a thoracic tumor. Hearts with considerable generalized atherosclerosis of the coronary arteries have severe interference of blood supply and, in addition to fibrous scars there is atrophy of the muscle with decrease in the thickness of the ventricle wall, and atrophy of the papillary muscles and columna carneae. The muscle function, of course, is decreased. Cognizance of such sequellae with coronary disease enables a better evaluation of the clinical symptoms in these patients.

ACUTE NEPHROSIS IN AN INFANT

A white male child, aged 28 months, entered St. Luke's Hospital in the care of Doctor C. Stepan on March 11, 1950 and died on the same day. He had been a patient in the clinic because of spastic paraplegia and when seen on March 8th seemed to be in good health. He developed a cold, had vomited for 24 hours before admission, and had received only crystacillin as medication on March 10th and March 11th. The child was deyhydrated and appeared severely ill. His respirations were shallow and he died shortly after reaching the children's ward. Urine collected immediately after death contained 200 mgms. per cent albumin and many red blood cells. The clinical diagnosis was acute glomerulonephritis.

The important portions of the anatomic diagnosis of the complete necropsy are:

Acute glomerulonephritis (lipoid nephrosis) of the kidneys;

Hyperemia, edema and focal hemorrhages of the lungs;

Fatty changes of the liver;

Cloudy swelling of the myocardium and parenchymatous tissues.

The body weighed 29 pounds. The serous cavities of the trunk had smooth moist surfaces but no collections of fluid. The pericardium had a slight excess of fluid with a few grey floccules. The lining of the trachea and bronchi was hyperemic. The hyperemic, edematous, subcrepitant right lung weighed 90 gms., the similar left lung 80 gms. The heart weighed 50 gms. There were no significant changes of the valves or myocardium. The large pale right kidney weighed 58 gms., the left 60 gms. The capsule of the kidneys stripped from a hyperemic tan-yellow surface, smooth except for fetal lobation markings. The pale yellow cortex was 8 mms. wide and the height of the corresponding pyramid was 15 mms. The columns of Bertini ranged to 4 mms. The lining of each renal pelvis and ureter was smooth (Figure 2). The biliary lymph nodes were large. The pancreas weighed

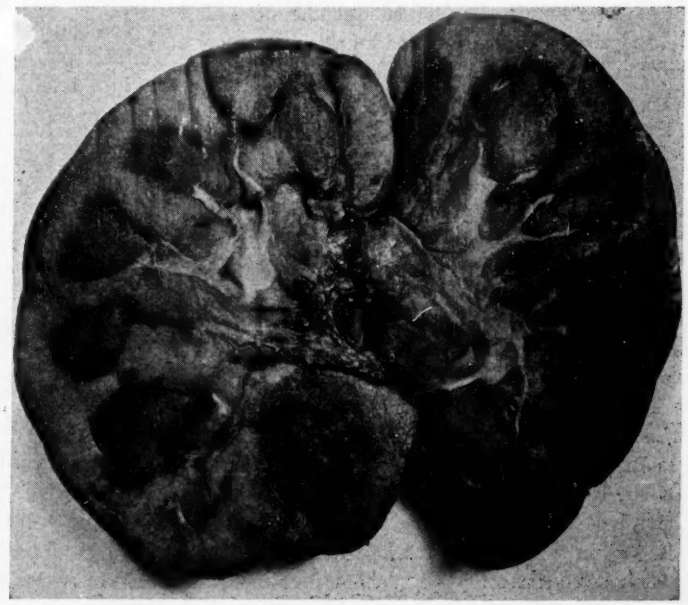


Figure 2. Photograph illustrating the nephrosis of the kidney.

20 gms., the spleen 70 gms., and the liver 310 gms. The capsule of the liver was smooth and the tissues beneath were tan-yellow and had some lobular markings. The lining of the oesophagus, stomach, bowel, colon and rectum had no changes. The brain weighed 1100 gms. and when examined after formalin solution fixation had nothing unusual. Histologically the glomerular tufts of the kidneys were vascular and moderately cellular. There were marked changes of the tubular epithelium. The lining cells of the convoluted tubules were pale, granular and swollen, the lumens contained granular precipitates. In sections stained with Sudan the tubule cells had large amounts of lipid material. The liver also had marked deposits of lipid.

COMMENT

The history of the illness of this child is short. With the exception of the absence of edema, the anatomic changes observed in the body are those of a so-called lipoid nephrosis. This is not a sharply defined kidney disturbance but rather merges into the proliferative form of glomerulonephritis. The urine of the child had a large amount of albumin and numerous red blood cells indicating an increased permeability of the glomerular capillaries. Histologically the glomerular tufts had dilated capillaries and only a slight increase in cells. The sections stained with Sudan demonstrated large amounts of lipid material in the renal tubules and the fatty changes of the liver indicated a marked systemic metabolic disturbance. This form of kidney disease occurs in childhood and adolescence. Had the illness not terminated so quickly in this child, the other clinical manifestations such as anasarca would have developed, and studies of the blood would have disclosed decreased plasma proteins and a reversal of the albumin-globulin ratio.

OSTEITIS DEFORMANS (PAGET'S DISEASE) WITH OSTEOGENIC SARCOMA OF THE SPINE

A white male aged 49 years entered St. Luke's Hospital for the second time on February 2, 1950. His first admission was to the service of Dr. Eric Oldberg in July of 1949. He was a native of Greece and came to Chicago because of pain in the lower thoracic region of the back which had been present for about four months. In his native land this had been treated as a tuberculous lesion. A month before admission the pain became severe and he was forced to rest in bed. During this rest, weakness developed in the right leg and difficulty in walking. He was a well-nourished, middle-aged male with weakness in all movements of the right leg and hyperesthesia below the level of the first lumbar vetrebra. A spinal puncture disclosed a block and the fluid contained 820 mgms. per cent of protein. An x-ray examination of the spine demonstrated a destructive process of the tenth thoracic vertebra, and changes in the last lumbar vertebra and the left side of the sacrum had some of the features of Paget's disease or those of a metastatic cancerous growth. A myelogram located the obstruction at the level of the tenth thoracic vertebra. He had mild anemia. Other laboratory tests revealed no significant information. Doctor Oldberg explored the spine and performed a lower dorsal laminectomy with decompression of the spinal cord. Bone tissues removed at the time of operation were diagnosed as osteitis deformans (Paget's disease) of the spine. Two days after the operation he had complete loss of voluntary control of the lower extremities and urinary retention. Then a more extensive laminectomy was done. Nineteen days later he was explored again. He had remained paraplegic, had some loss of sensation bilaterally in the groin, and a loss of sphincter control. A cord block was shown to be present at the level of the eighth and ninth thoracic vertebrae. The laminectomy, accordingly, was extended upward to these levels and tissues removed at the time of this operation were found to contain osteogenic sarcoma and osteitis deformans. He remained in the hospital for 181 days and returned on February 2, 1950 without improvement of symptoms and with dyspnea of about ten days' duration. When examined he was paraplegic. The left side of the chest was dull to percussion to the level of the sixth thoracic vertebra. The right chest was clear to auscultation and percussion. The blood had 3,780,000 red cells and 10,250 leucocytes per cu. mm. The urine contained 90 mgms. per cent of albumin, many leucocytes and variable numbers of erythrocytes. The alkaline phosphatase was 29.25 mgms per cent and a roentgen film of the chest revealed a large collection of fluid on the left side. A liter of bloody fluid

was aspirated. An indwelling catheter was placed in the urinary bladder to facilitate drainage. On the third hospital day another 800 cc. of bloody fluid were removed from the left side of the chest but other attempts at aspiration met with difficulty in introducing the needle and gave the impression of tumor tissues on the left side. The patient received nitrogen mustard therapy and had a severe attack of dyspnea and tachycardia. He died on April 1, 1950.

The essentials of the anatomic diagnosis of the necropsy (trunk) are:

Osteogenic sarcoma of the 10th, 11th and 12th thoracic vertebrae of the spine;

Sarcoma invasion of the spinal segment of the 10th, 11th, and 12th right and left ribs, the sternal end of the left 5th rib, the sternum, the right and left lung and pleura, the thoracic periaortic tissues, the pericardium, and the second lumbar vertebra;

Extensive old laminectomy and exploratory scar of the back;

Osteogenic sarcoma compression of the azygos veins, the thoracic duct and the intrapulmonary branches of the pulmonary artery and veins;

Marked compression atelectasis of the left lung;

Bilateral hemothorax;

Hyperemia and edema of the right lung;

Bilateral obliterative fibrous pleuritis;

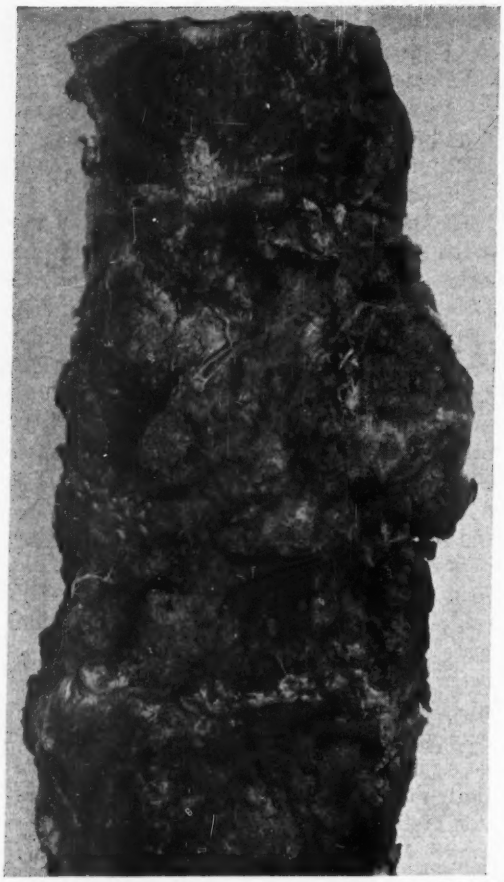
Disuse atrophy of the lower extremities;

Chronic passive hyperemia and fatty changes of the liver;

Chronic passive hyperemia of the spleen; etc.

The body of this adult white man weighed 180 pounds. There was marked atrophy of the lower extremities. On the inner surface of the left ankle was a decubitus ulcer 2.5 cms. in dia., another was on the inner surface of the right heel, 4 cms. in dia. and a third over the right hip was 5 by 7 cms. The peritoneal structures had no significant changes. On the left side of the visceral surface of the sternum was a mass of osteoid tissue, some of it hard and some of it soft, which extended from above down 10 cms. and was 4.5 cms. wide. Portions of these tissues were in nodules as large as 1 cm. Most of the right pleural space was obliterated by adhesions between the lung and the chest. The left pleural space was obliterated by fibrous adhesions between the lung and the chest and in the interstices were collections of bloody fluid. The left lung was markedly compressed. The heart had no significant changes. The pericardium posteriorly was invaded by sarcoma tissues. Evisceration of the chest and abdomen exposed a huge growth of hard and soft tumor tissue on the left

Figure 3. Photomicrograph illustrating the mosaics of lamellar tissue in bones with Paget's disease. X-198



side of the spine that began at the level of the clavicle, extended to the 11th thoracic vertebra and spread laterally 6 to 8 cms. The tissues cut with resistance. On the right side of the spine opposite the 10th, 11th and 12th thoracic vertebrae was another mass of hard tissue, 8 cms. long, 5 cms. wide and 4.5 cms. thick. These tissues were partially ossified. Many single and confluent tumor nodules were under the left and right parietal pleura. The 12th to the 5th thoracic vertebrae were completely replaced by grey tumor tissue. The lumbar spine had no tumor tissue except the second vertebra which had a small wedge of grey tissue. Grey tumor tissues from the spine extended into the ribs as much as 3 cms. The first left rib at its sternal articulation was grey with porous tumor tissues. The upper portion of the aorta on the left side and behind was encased by tumor. Just above the diaphragm on the right side was a pocket 10 to 15 cms. in diameter filled with fibrin and blood which displaced the lung upward. The markedly consolidated right lung with multiple nodules weighed 895 grams. The pleura was covered with round button-like grey-red tumor nodules that cut with the resistance of medullary bone. In the parenchymal tissues were many hard bone-like nodules of tumor. The markedly collapsed left

Figure 4. (above) Photograph illustrating the osteogenic sarcoma of the thoracic portion of the spine.

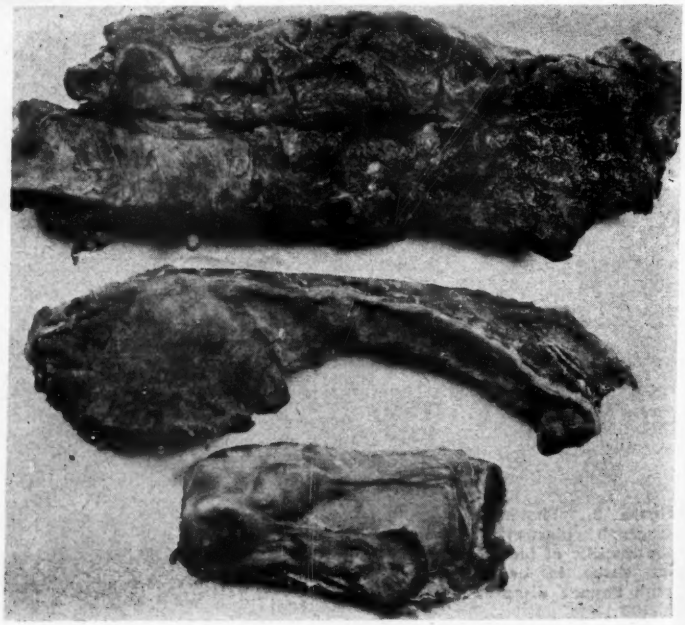


Figure 5. Photograph illustrating the osteogenic sarcoma invasion of the left first rib and also of the parietal pleura.

Figure 6. Photograph illustrating the sarcoma nodules in the right lung.

lung weighed 360 grams, and had nodules of bony tumor tissues 1 to 2.5 cms. in diameter. Surfaces made by cutting this lung had several hard tumor nodules 1 to 3.5 cms. in diameter. The suprarenal glands, the kidneys, the liver, the spleen, the pancreas, the gastro-intestinal tract, urinary bladder, prostate, seminal vesicles and testes had no tumor tissues. Tumor tissues from many places had a fibrillar stroma and a large amount of osteoid tissue arranged in trabeculae. The soft portions of the tumor had a fibrillar stroma with numerous atypical pleomorphic mesoblastic cells, round, oval or spindle shaped, and with vesicular nuclei. There were also bizarre giant cell forms with corresponding nuclei or with hyperchromatic irregularly lobed nuclei. Many cells were in mitosis.

COMMENT

Paget mentioned the tendency of patients with osteitis deformans (Paget's disease) to develop sarcoma, and the occurrence of sarcoma with this disease, according to many reports, is more than a mere coincidence. The relationship is strengthened also by the presence of osteogenic tissues in a large number of the sarcomas described. Some writers think the sarcoma with osteitis deformans has structural features which differ from the usual osteogenic sarcoma. Sarcoma develops more frequently in males with the disease than females. The long bones and the cranium are most frequently affected. The occurrence of sarcoma in the spine (vertebra) is rare. This report, therefore, describes sarcoma with Paget's disease originating in an uncommon portion of the skeleton.

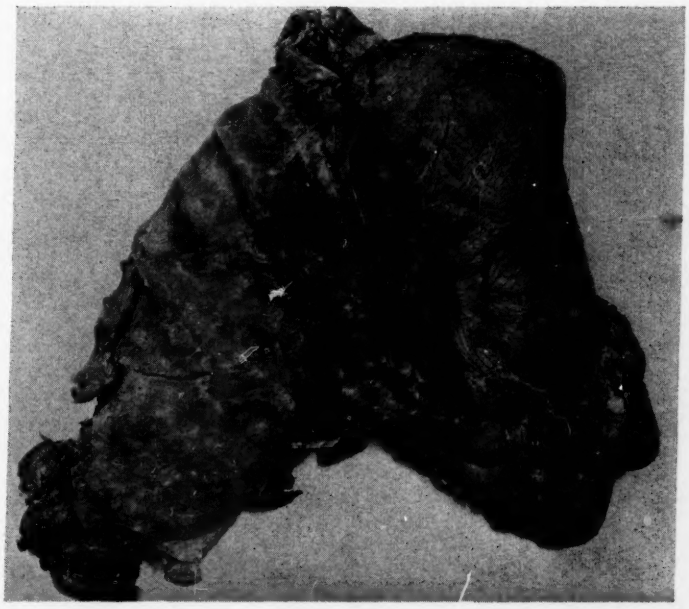


Figure 7. Photograph illustrating the sarcoma invasion of the right parietal and visceral pleura.

NEWS OF THE STATE

CHAMPAIGN

Society News.—Dr. H. Kent Tenney, Jr., professor of pediatrics, University of Wisconsin School of Medicine, Madison, addressed the Champaign County Medical Society, November 9, on "The Responsibility of the General Practitioner in the Emotional Problems of Children." Dr. Manuel Lichtenstein, Chicago, addressed the October meeting of the society on "Failure of Gallbladder Surgery." Dr. Richard Young, dean of the Northwestern University Medical School, recently discussed "The Future in Medical and Dental Education" before the society.

COLES

Fifty Year Pin.—Dr. C. E. Greer was inducted into the Fifty Year Club of the Illinois State Medical Society at a recent meeting of the Coles County Medical Society. The presentation was made by Dr. Harlan English, Danville. Similar insignias were given to Drs. Ed Summers and C. B. Voigt of Mattoon.

COOK

Personal.—Dr. Loyal Davis, professor of surgery and chairman of the department, Northwestern University Medical School, has been elected a regent of the American College of Surgeons, it was announced November 10. He has also been named director of the Franklin H. Martin Memorial Foundation which publishes the medical journal, "Surgery, Gynecology and Obstetrics."—Dr. Charles D. Krause, instructor in obstetrics and gynecology, University of Illinois College of Medicine, addressed the medical students at the Escuela de Medicina de Nuevo Leon, Monterrey, Mexico, during a meeting November 27-29. His subjects were "Obstetrical Emergencies and Their Treatment" and "Adenomycosis Symptoms and Treatment." While there, he addressed the local Association of Obstetrics and Gynecology on "Ectopic Pregnancy."—Dr. B. Barker Beeson, Chicago, has been elected an honorary member of the Societe Francaise de Prophylaxie Sanitaire et Morale and also of the Societe de Therapeutique, both of Paris.—Dr. Bernard G. Sarnat, clinical assistant professor of oral surgery, University of Illinois College of Medicine, has been named the recipient of the second prize in the 1950 international essay competition for the Kerbs Award in Plastic Surgery. The Kerbs award is offered by the Foundation of the American Society of Plastic and Reconstructive Surgery for an essay on an original unpublished research, basic or clinical, in plastic surgery. The title of Dr. Sarnat's paper was "The Effect of Surgical Removal of the Condyle on the Growing Mandible: An Experimental Study on the Macaca Rhesus Monkey." The paper was presented November 29 at the annual meeting of the American Society of Plastic and Reconstructive Surgery held jointly with plastic surgeons of Central and South America at Mexico City.

Society News.—The Chicago Heart Association held a clinical section, November 10, at Wesley Memorial Hospital, with the following physicians participating: Drs. Frederic A. Lestina, David E. Markson and Paul S. Rhoads, on "Effect of ACTH on Lupus Erythematosus"; Dr. Charles E. Thompson, "Paroxysmal Hypertension Occurring in a Patient with Spinal Cord Injury"; Drs. George C. Sutton and George E. Wendel on "An Evaluation of Intracardiac Angiocardiography"; and Dr. Clayton J. Lundy, "Clinical: Pathologic Problems." Dr. Joseph F. Mallach presided.—Dr. Edward F. Rosenberg, chief of the arthritis clinics, Michael Reese and Mount Sinai Hospitals, and assistant professor

of medicine, Chicago Medical School, addressed the Chicago Society of Physical Medicine and Rehabilitation, November 22, on "Use of Cortisone and ACTH in the Treatment of Arthritis: Its Relationship to Physical Medicine."—Dr. Louis B. Newman, chief, physical medicine and rehabilitation service, Veterans Administration Hospital, Hines, was guest speaker recently in conjunction with the three-day Institute on Geriatric Nursing which was sponsored by the Loyola University department of nursing, Chicago. Dr. Newman gave an illustrated talk on "Physical Medicine and Rehabilitation of the Disabled."—The Chicago Rheumatism Society was addressed October 25 by Dr. Evan M. Barton, Chicago, on "Experiences with Cortisone in Long-standing Crippling Disease."

Branch Meetings.—Dr. C. W. Mayo, Rochester, Minnesota, discussed "Diagnosis and Management of Lesions of the Rectosigmoid" before the North Suburban Branch of the Chicago Medical Society, October 9. The Branch was addressed November 13 by Dr. Smith Freeman on "Physiology and Therapeutic Indications of ACTH and Cortisone."—At a meeting of the Northwest Branch November 3, Dr. Herbert E. Schmitz spoke on "Bleeding in the Climacteric."

The Julius Hess Memorial Lecture.—Dr. Robert Gross, Ladd professor of children's surgery, Harvard Medical School, Boston, gave the Julius Hess Memorial Lecture, October 18, at the University of Illinois College of Medicir on "Surgery in the Early Months of Life."

The Pusey Memorial Lecture.—Dr. George W. Pickering, director, medical unit, St. Mary's Hospital, London, England, gave an illustrated lecture on "Headache", October 30, at a joint meeting of the Institute of Medicine of Chicago and the Chicago Society of Internal Medicine. The presentation was the Fourth William Allen Pusey Memorial Lecture of the Institute.

Lectures by Dr. Snapper.—Dr. I Snapper, director of medical education of Mount Sinai Hospital, New York City, gave two lectures in Chicago November 8-9, at Mount Sinai Hospital, Chicago, on "Metabolic Aspects of Multiple Myeloma" and "The Influence of Customs on Disease in Tropical Areas."

Community Health Forum.—The Tuberculosis Institute of Chicago and Cook County sponsored a community health forum, November 15-16, at the Metropolitan Community Church, Chicago. The session was divided into the following discussions: The Function of the Tuberculosis Association in Tuberculosis Control, The Function of the Official Agency in Tuberculosis Control, Tuberculosis: A Community Problem, and Community Participation in Tuberculosis Control.

Dr. Nalefski Named Clinic Director.—Dr. Lester Nalefski has been named medical director of the Montgomery Ward Clinic of Northwestern University's Medical School, it was announced recently by the University.

As clinic medical director, Dr. Nalefski will supervise clinical work by senior medical students and direct administration of the clinic. His work will be under supervision of Dean Richard H. Young and Medical School department heads.

Dr. Nalefski, member of the Medical School's Department of Medicine since 1949, has done extensive research on heart disease. He has published 16 articles dealing with the disease, work of the heart, and cardiac metabolism.

In addition to serving as Clinical Medical Director, he will continue his teaching research duties in the Department of Medicine. Prior to joining the Medical School staff, he served as senior medical resident at St. Luke's Hospital in Chicago and as a Captain in the Army Medical Corps.

Grants in Aid.—Dr. Piero P. Foa, department of physiology and pharmacology, Chicago Medical School, has been awarded a grant in the amount of $3,339 by the U. S. Public Health Service. This grant has been given for the continuation of his work on the study of the utilization of vitamins in diabetes.—A grant in the amount of $3,000 from the White Laboratories of Newark, New Jersey, has been made to the Chicago Medical School, to be used for cardiovascular research, and will be administered by Dr. Aldo A. Luisada, director of the program of cardiology at the school. Armour and Company has awarded a $3,000 grant to the School for research on the splenic hormone principle. The grant will be used by Dr. George A. Scheff, department of microbiology and public health.—Northwestern University Medical School has received a grant of $1,625 from Airkem, Inc. of New York, for olfactory research under the direction of Dr. Jules H. Masserman, associate professor of nervous and mental diseases. Dr. Masserman's work deals with the olfactory component of neurosis and the influence and effect of smell upon individual reactions and impressions. Major part of the research study is being conducted with cats and monkeys in an attempt to determine general reactions produced by certain odors. The $1,625 gift is part of a $6,500 yearly grant given to Northwestern by the national corporation.

Clinical Conference of Ophthalmological Society.—The Chicago Ophthalmological Society will hold its Third Clinical Conference, at the Edgewater Beach Hotel, February 15-17, 1951. Registration will be at the hotel. Clinics are being planned at the various Chicago hospitals, the schedules for which will be available at registration. On Friday, the following speakers will participate: Drs. Peter C. Kronfeld and Joseph S. Haas, "Glaucoma"; Dr. Harold Scheie, Philadelphia, "Goniotomy and Goniopuncture"; Dr. Paul Greeley, "General Principles of Plastic Surgery" and Dr. Irving S. Puntenney, "Plastic Surgery of the Eye." On Saturday, Dr. Derrick Vail will serve as moderator on a symposium on "Recent Advances in Ocular Therapeutics." In the afternoon, the speakers will be Dr. Robert

Masters, Indianapolis, on "Ocular Injuries" and Dr. J. V. Cassady, "Dacryocystitis of Infancy." In the evening, Dr. Alan C. Woods, Baltimore, will deliver the Seventh Annual Sanford R. Clifford Lecture on "The Present Status of the Adreno-Cortical Hormone in Ophthalmology."

For additional information, write to Miss Maud Fairbairn, 8 West Oak Street, Chicago 10. Registration fee: $25.00, payable at time of registration.

Surgical Society Annual Prize.—The Chicago Surgical Society awards an annual prize of $250 for a manuscript describing experimental work in experimental or clinical surgery. The paper submitted must represent the original work done by one aided by associates but not necessarily based on a completely original idea; the illustrations must be original and not borrowed from someone's correlated work; the paper must never have been read or printed anywhere as submitted in its final form; the diction and simplicity of the presentation must remain a large factor in its value; all references to the literature or other sources of information cited must be in orthodox fashion, conforming to type of abbreviations and order used by the Quarterly Cumulative Index Medicus; all illustrations must have ample legends appended, and proper and sufficient identification marks should be indicated to make understanding of the illustrations clear and easy; resident requirements of applicants should be made to conform to those required for possible members in the Chicago Surgical Society, as expressed in its Constitution and By-Laws, viz., Cook County, Illinois; all identification marks of the individual and of the hospital or institution in which work was performed must be eliminated. The paper, accompanied with a sealed envelope bearing the title of the paper and containing the name and address of the author, should be in the hands of the secretary, Dr. Harvey S. Allen, 154 East Erie St., Chicago 11, not later than March 15, 1951.

Foundation for Retarded Children.—The Dr. Julian D. Levinson Memorial Foundation, established in September to aid mentally retarded children, held its first public meeting in October. Speakers included Dr. Abraham Levinson, chief of the children's department of Cook County Hospital and professor of pediatrics at Northwestern University Medical School. The foundation is named for his son, a pediatrician, who died last June at the age of 27. Dr. Karl A. Meyer, medical superintendent of Cook County Hospital, and Dr. Samuel J. Hoffmann, administrative director of the Hektoen Institute for Medical Research, with which the foundation is affiliated, spoke at the meeting.

New Affiliation to Establish Residency Training Program.—An affiliation has been consummated between St. Francis Hospital of Peoria and the University of Illinois College of Medicine for the purpose of establishing a residency training program in surgery.

The affiliation is expected to be mutually beneficial to both institutions. The staff of St. Francis will be augmented by the appointment of qualified physicians who have received one or two years of surgical experience at the University's Research and Educational Hospitals in Chicago.

The plan will enable the University to train a larger number of qualified surgeons, and to give them a more diversified teaching program. In the three-year training program for resident surgeons, they will receive instruction at a teaching institution as well as at a private community hospital.

Dean Stanley W. Olson of the College of Medicine has announced that Dr. Charles D. Branch, chief of surgery at St. Francis Hospital, has been appointed to the faculty of the University. He will supervise the St. Francis phase of the cooperative program.

Dr. Branch has been appointed with rank of clinical assistant professor of surgery. A graduate of the University of Michigan, Dr. Branch was a member of the faculty of Harvard Medical School prior to his appointment at St. Francis in 1945.

Course for Stutterers and Their Families.—Northwestern University is preparing to institute a special evening course on its Chicago campus for adult stutterers, Dr. Harold Westlake, professor of speech correction, announced recently.

Assistance and counsel will be provided not only for people who stutter but also for members of their families. Dr. Westlake pointed out that it is important for the family as well as the stutterer to have a thorough understanding of this type of faulty speech.

"When parents, or the husband of wife of a stutterer show undue concern, the victim senses this anxiety and often feels rejected," the Northwestern professor explained. "This condition make it more difficult for the stutterer to overcome his speech defect."

The Northwestern course, called "Speech for Stutterers," will be conducted by Philip Hood, staff member of the University's Speech and Hearing Clinic. Instruction will be given every Tuesday night from 6:20 to 8 p.m. for 18 weeks, beginning February 5. Classes will be held in the Montgomery Ward building at 301-303 E. Chicago Ave. Registration will be held from Jan. 27 through Feb. 3 on the fifth floor of Wieboldt Hall, 339 E. Chicago Ave.

The class work will include lectures on the causes and nature of stuttering, discussions of problems faced by stutterers and their families, and practical demonstrations of techniques for controlling stuttering. The course will not be academic but will deal with the problems of the class members. The Northwestern University Speech and Hearing Clinic was one of the first university clinics of this type established in this country. Since its beginning in 1926, it has pioneered in research, training speech and hearing therapists, and in clinical work with persons having speech problems. At present, the clinic staff includes eight faculty members and 18

clinical workers. The clinic program is conducted in cooperation with Northwestern's Medical School and the School of Dentistry.

CUMBERLAND

Personal.—Dr. R. C. Steck, Toledo, has been named superintendent of Anna State Hospital, Anna, to succeed Dr. C. D. Nobles, who will retire December 31, it was announced in Springfield recently.

FRANKLIN

Personal.—Dr. Charles Henry Eldridge has left the active practice of medicine and gone to Harlingen, Texas.

FULTON

Society News.—Dr. H. D. Junkin, Paris, discussed "External Fixation of Fractures" before the Fulton County Medical Society, October 26, in Canton.

HANCOCK

Carthage Hospital Dedicated.—The sixth Illinois hospital has been completed under the federal and state hospital construction acts—the 46-bed Carthage Memorial Hospital. This hospital recently had the honor of being named the "Modern Hospital of the Month" by the magazine, Modern Hospital. Dedication ceremonies featured an address by Dr. Malcomb T. MacEachern, Chicago.

KNOX

Society News.—Dr. Armand J. Mauzey, Chicago, recently addressed the Knox County Medical Society, in Galesburg, on "Diagnosis and Treatment of Ectopic Pregnancy." At the same meeting, Senator Wallace Thompson gave a brief presentation on "The Gateway Amendment to the Constitution of the State of Illinois."

LAKE

Hospital News.—An addition to the Highland Park Hospital was dedicated October 8 with special ceremonies. Representatives of all denominations of the county participated in the observance as well as the members of the medical staff of the hospital, members of the woman's auxiliary, and the Lake County Medical Society.

MASON

Dr. Steele Day.—Residents of Havana publicly honored Dr. William A. Steele on his eighty-third birthday, November 11. Mayor Clarence Chester gave the official proclamation naming the day as "Dr. Steele Day." A public parade opened the celebration with all local groups participating. Harry Nesmith, national surgeon general of the Amvets, and Dr. Harlan English, Danville, representing the Illinois State Medical Society, acclaimed Dr. Steele's medical service of the last fifty-four years. Some time was spent in Carmi, Chicago, and the last forty-one years in Havana.

MC DONOUGH

Society Election.—Dr. B. H. Borum, Blandinsville, was elected president of the McDonough County Medical Society, October 27. Other officers elected were Dr. O. A. Dively, first vice president; Dr. R. L. Franck, second vice president; and Dr. R. C. Benkendorf, secretary-treasurer. Dr. R. F. Millet was elected delegate and Dr. V. B. Adams, alternate, to the Illinois State Medical Society. Dr. W. E. Carnahan was chosen necrologist, Dr. C. L. Weston, chosen to the membership committee for three years, and Dr. Millet, board of censors for three years. At the meeting, Dr. C. N. Stephens, Industry, was presented with the Fifty Year Insignia indicating membership in the Fifty Year Club of the Illinois State Medical Society. The presentation was made by Dr. Charles P. Blair, Monmouth, Councilor of the District. Dr. Arkell M. Vaughn, Chicago, addressed the meeting on "Surgical Treatment of Varicose Veins."

PEORIA

Personal.—Dr. R. L. Eddington, Lacon, was presented with the Fifty Year Insignia of the Illinois State Medical Society at a meeting of the Peoria Medical Society.

PERRY

Personal.—Dr. Gilbert H. Edwards, Pinckneyville, has been named a member of the advisory board of cancer control. The appointment was made by Governor Adlai Stevenson.

ROCK ISLAND

Society News.—At the November 14 meeting of the Rock Island County Medical Society in Moline, the speakers were Dr. Austin Smith, editor of the Journal of the American Medical Association, and Dr. E. R. Serles, dean of pharmacy of the University of Illinois. Their subject was "Interprofessionally Yours."

SANGAMON

Dr. Baxter Named to New Post.—Dr. A. C. Baxter, formerly State health officer, has been appointed city superintendent of health of Springfield. The position has just been placed on a full-time basis. Dr. J. H. Shamel, who has held the position for more than three years in a part-time basis, resigned.

Society News.—The Sangamon County Medical Society was addressed November 2 in Springfield by Dr. Grant H. Laing on "Problems of Amebiasis" and Dr. Guy V. Pontius on "Surgery of Gastric Peptic Ulcer." Dr. Paul C. Bucy addressed the society, October 5, on "Management of Convulsive Disorders." The speakers are all of Chicago.

WHITESIDE

Personal.—Dr. John D. Hollander, who has practiced in Morrison for the past four and a half years, left November 2 for Ripon, California, his home town, where he will practice. Dr. W. W. Robinson, who has been practicing with his brother, Dr. S. E. Robinson of Prophetstown, will assume Dr. Hollander's practice.

WINNEBAGO

Society News.—Dr. Jan H. Tillisch, Rochester, Minnesota, addressed the Winnebago County Medical Society, November 14, in Rockford, on "Postoperative Medical Complications."

GENERAL

Surgeons to Hold Seven Sectional Meetings.—The first of a series of seven Sectional Meetings of Surgeons will be held in St. Louis on January 22 and 23, with headquarters at the Hotel Statler, according to an announcement by Dr. Henry W. Cave of New York, President. Attendance will be largely from Arkansas, Illinois, Indiana, Iowa, Kansas, Louisiana, Minnesota, Mississippi, Missouri, North and South Dakota, and Wisconsin, although there is no geographic restriction. The other six Sectional Meetings will be held in Hot Springs, Virginia, February 26 and 27; Philadelphia, March 5 and 6; New Haven, March 16 and 17; Portland, Oregon, March 26 and 27; Denver, April 6 and 7 and Detroit, May 10 and 11. The Sectional Meeting will open at 8:30 both mornings with the showing of medical motion pictures. On the first morning these will be followed at 10:00 o'clock by a scientific session with the following subjects: "Surgery for Ischemic Diseases," "The Emergency Management of the Injured Chest," "Fractures about the Ankle Joint," and "Hermaturia Following Trauma: Present Means of Diagnosis and Treatment."

Luncheon will be held on the first day followed by medical motion pictures at 1:30. The panel discussions on the first afternoon will be on "Neck Surgery" and "Acute and Chronic Osteomyelitis."

On the first evening a dinner for Fellows and other members of the medical profession will be held, following which there will be discussion of activities of the College and a talk on "The Medical Organization of the Chinese Communists" by Dr. Melvin A. Casberg, Dean, St. Louis University Medical School. From 8:30 to 10:00 there will be a Symposium on Cancer.

On the second morning from 8:30 to 10:00 there will be a showing of medical motion pictures, and also presentation of papers on trauma, arranged by the Committee on Trauma. From 10:00 to 12:00 o'clock there will be a scientific session on the following subjects: "Varicose Veins — Stripping versus Ligation," "Special Problems in the Surgical Treatment of Ulcerative Colitis," "Personality Functioning and Ulcerative Colitis" and "Carcinoma of the Stomach."

Following the luncheon period there will be a showing of medical motion pictures from 1:30 to 2:00. From 2:00 to 3:30 there will be a panel discussion of "Emergencies Arising During Operation" and from 3:35 to 5:00 on "Proper Relationship Between Patient, Physician, Consultant and Hospital."

On the day following the Sectional Meeting in St. Louis, January 24, a full day of clinics will be held in St. Louis hospitals for the visiting surgeons.

DEATHS

JULIUS S. ALEXANDER, Peoria, who graduated at Illinois Medical College in 1909, died August 19, aged 64. He was a member of the American Psychiatric Association and affiliated with Peoria State Hospital.

ANNIE BELLE ALGUIRE, retired, Belvidere, who graduated at Medical Faculty of Trinity University, Toronto, Canada, in 1895, died October 8, aged 82. She was a member of the "Fifty Year Club" of the Illinois State Medical Society.

HARRY BERNARD BERNHARDT, who graduated at Northwesten University Medical School in 1909, died August 15, aged 65, of myocardial infarction.

JOSEPH J. EHRESMANN, retired, formerly of Carrollton, who graduated at St. Louis University School of Medicine, died October 20, aged 73.

CLINTON J. ESTES, Harrisburg, who graduated at Chicago College of Medicine and Surgery in 1915, died October 24, aged 65.

FRED S. O'HARA, retired, Springfield, who graduated at Marion-Sims College of Medicine, St. Louis, in 1899, died October 1, aged 74. He was a member of the "Fifty Year Club" of the Illinois State Medical Society and the first president of the Radiological Society of North America.

JOSEPHINE ESTABROOK YOUNG, retired, Evanston, who graduated at Northwestern University Women's Medical School in 1896, died October 4, aged 84.

"FOR THE COMMON GOOD"

Health Talk Moves to Evening Time on WGN-TV.—Beginning November 1, Health Talk, the weekly telecast produced by the Educational Committee of the Illinois State Medical Society in cooperation with WGN-TV, was moved to Wednesday night at 9 p.m. The series observed its second anniversary on WGN-TV, December 15. **Television Forecast,** the weekly trade magazine, featured Health Talk in a recent issue with illustrations and a story of the highlights of the history of the series which has been presented as a public service.

That the telecast is being used as a teaching instrument is reflected in the inquiries and comments coming from biology students in the Chicago area; some have been received from Waukegan. The Radio Council of the Chicago Board of Education recently asked permission to view a program in the studio while it was being televised. Health Talk is on the list of recommended telecasts by the Council.

Among the "firsts" the series has established was the first public telecast of an actual living beating heart; this was coupled with a reproduction of the sounds of the heart by means of a special amplifier. "Guardians of Your Sleep" was another first, demonstrating the administration of anesthesia; this telecast was selected by the Council of the Illinois State Medical Society to be presented in Columbus, Ohio, in May as a pioneer feature of the Annual Institute of Education by Radio. "Preparing the Surgical Patient", another first, revealed the techniques used in removing bacteria, the draping of the patient, administration of anesthesia and surgical techniques. So realistic was this program that many viewers called to ask whether an operation had been performed.

Since the last issue of the Illinois Medical Journal, the following telecasts have been presented:

Home Care of the Sick Child, October 23, C. Edward Stepan.

"Guardians of Your Sleep" (repeat), Max Sadove, James H. Cross, Lloyd Gittelson. Edward Pelikan, and Nurse Lenore K. Hermann, November 1.

"You and Tuberculosis", Jerome Head, November 8.

"Congenital Club Foot", Manley Page, November 15.

"Your Doctor Speaks" over WFJL, Thursday evenings, at 7:30 carried the following transcribed broadcasts under the auspices of the Educational Committee.

C. Wesley Eisele, November 2, Human Diseases Transmitted by Animals.

Edwin Hirsch, November 9, Why An Autopsy.

Maurice H. Cottle, November 16, Plastic Surgery.

John R. Wolff, November 23, Prenatal Care.

"You and Your Baby" over Station WAAF, Tuesday mornings at 10:30 a.m. presented the following physicians in live broadcasts: under the auspices of the Educational Committee:

Arthur W. Fleming, October 24, The Young Explorer

Arthur Rosenblum, October 31, What First—Mind or Body?

So popular was this series that the Station asked to repeat it. The same physicians and the same scripts are being used in the repeat broadcasts:

George Vlasis, November 7, Prenatal Care.

Charles D. Krause, November 14, Instructions to the Mother as Time of Delivery Approaches.

"Here is Your Doctor" over Station WCFL, Saturday mornings at 11 a.m. presented the following physicians in transcribed broadcasts under the auspices of the Educational Committee:

Jules H. Masserman, November 4, Mental Hygiene Under the Threat of War.

Geza de Takats, November 11, Varicose Veins.

Richard Bennett, November 18, Hernias.

Lectures Arranged Through the Educational Committee:

Louis R. Limarzi, Industrial Nurses Section, First District, Illinois State Nurses Association, September 14, on Diagnosis and Treatment of Common Blood Disorders.

Frank Deneen, Bloomington, Clinton Business and Professional Women's Club, September 28, on "Advances in Medicine."

Adrian D. M. Kraus, Park Manor PTA, November 8, on Foundations for Better Health and Physical Fitness.

Robert R. Mustell, Salvation Army Hospital and Clinics, November 8, on Colds.

Young Mothers' Club of Bryn Mawr Community Church, November 18, on My Child Will Not Eat.

Lars E. Lundgroot, Marshall PTA, November 15, on Basic Concepts of Child Development.

Edward A. Piszczek, Forest Park, St. John's Methodist Episcopal Church, November 16, on Health in A Rural Community.

Morris Friedell, Hyde Park YMCA Men's Club, November 28, on Superstitions About Health.

Samuel B. Broder, Gresham Woman's Club, November 29, on Your Mental Health.

Lawrence Breslow, Sauganash PTA, January 9, on Health of Grade School Children.

Helen B. Carlson, Lincoln Park Business and Professional Women's Club, January 10, on Behind the Rose Colored Glasses.

Paul K. Anthony, Bowen PTA, January 16, on Understanding the Adolescent.

Frank G. Murphy, Chicago, Paul Revere PTA, January 17, on Know Your Feet.

Joseph T. O'Neill, Ottawa, Greeley School

PTA, January 18, on Better Health and Physical Fitness of the Citizen Child.

Carl H. Hamann, Rockford, Junior Matrons of the Ottawa Woman's Club, January 19, on "The Balanced Budget in Mental Health."

Earl E. Eilson, Oak Park, Benjamin Franklin PTA in Glen Ellyn, January 22, on Understanding the Mental Health of Your Child.

Mrs. Kris Peterson, assistant in public relations, American Medical Association, January 26, on Petticoats in Public Relations.

Lectures Arranged by the Scientific Service Committee:

L. Martin Hardy, Chicago, Morgan County Medical Society, in Jacksonville, November 9, on Use of Antibiotics in the Common Diseases of Children.

Frederick Steigmann, Chicago, Henry County Medical Society in Kewanee, November 9, on Jaundice.

James H. Hutton, Whiteside-Lee County Medical Societies in Rock Falls, December 7, on Office Procedures in the Diagnosis and Treatment of Endoctrinopathies.

Morley D. McNeal, Highland Park, Bureau County Medical Society, Spring Valley, December 12, on Problems in Infant Feeding.

Herbert E. Schmitz, La Salle County Medical Society in La Salle, January 11, on Indications for Cesarean Section.

Postgraduate Conferences: The following postgraduate conferences were arranged for the indicated Councilor Districts:

First, embracing the counties Boone, Carroll, DeKalb, Jo Daviess, Kane, Lake, McHenry, Ogle, Stephenson and Winnebago in Freeport, November 29, with the Stephenson County Medical Society acting as host and with Joseph Lundholm, Rockford, Councilor, presiding: The following all participated:

Irving E. Steck, Arthritis and Allied Conditions, illustrated.

Howard L. Alt, Present Day Treatment of the Common Blood Diseases.

Robert M. Grier, Evanston, Importance of Clinical Observations of the Last Month of Pregnancy.

Hugh A. Flack, Cardiovascular Diseases.

Arthur H. Rosenblum, Gastrointestinal Allergies in Infants.

Harold M. Camp, Monmouth, Voluntary Prepaid Medical Insurance.

Anthony V. Partipilo, Duodenal Obstruction.

Fifth District, embracing the counties of DeWitt, Logan, Mason, McLean, Menard, Montgomery, Sangamon and Tazewell, in Pekin November 9, with the Tazewell County Medical Society acting as host and Ralph P. Peairs, Normal, Councilor presiding. The following program was presented:

Edwin F. Hirsch, Chicago, and James Weimer, Pekin, Clinical Pathological Conference.

Raphael Isaacs, Recent Advances in Diagnosis and Treatment of Leukemia and Anemia.

William F. Lauten, Burns.

Edwin N. Irons, Use and Abuse of ACTH in a Small Hospital.

James H. Hutton, Office Procedure in Diagnosis and Treatment of Endocrinopathies.

Harold M. Camp, Monmouth, Voluntary Prepaid Medical Insurance.

Warren H. Cole, Intestinal Obstruction.

Seventh District, embracing the counties of Bond, Christian, Clay, Clinton, Effingham, Fayette, Macon, Marion, Moultrie, Piatt and Shelby in Effingham, November 30, with the Effingham County Medical Society acting as host and with Plina A. Adams, Altamont, president of the society, presiding: The participants included:

Harry A. Oberhelman, Relationship of Chronic Cystic Mastitis to Cancer of the Breast.

Willard O. Thompson, Clinical Uses of ACTH and Cortisone.

Philip Lewin, Backaches and the Disc Syndromes.

Henry Buxbaum, Management of Occiput Posterior.

Fremont A. Chandler, Management of Fractures of Both Bones of Forearm.

Walter M. Whitaker, Quincy, Present Day Treatment of Rheumatic Fever.

Harry M. Hedge, Office Dermatology.

Jacob E. Reisch, Springfield, Voluntary Prepaid Medical Insurance.

Morris Parker, Differential Diagnosis of Medical and Surgical Jaundice.

Eleventh District, including the counties of DuPage, Ford, Grundy, Iroquois, Kankakee, Kendall and Will in Elmhurst, November 15, with the DuPage County Medical Society acting as host and Edwin F. Neckermann, Elmhurst, president of the society, presiding. Speakers were:

Harry A. Oberhelman, Indications for Surgery in Peptic Ulcer.

Clayton J. Lundy, Anticoagulants in Heart Disease.

Norris J. Heckel, Chronic Pyelitis.

Rollin T. Woodyatt, Diabetes in Childhood.

Mr. John W. Neal, Voluntary Prepaid Medical Insurance.

Smith Freeman, Metabolism and Clinical Effects of ACTH and Cortisone.

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